Catalogue no. 88F0006XIE — No. 012
ISSN: 1706-8967
ISBN: 0-662-37653-6

Working Paper

Science, Innovation and Electronic Information Division working papers

# Federal government payments to industry, 1997-1998 to 2001-2002

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# Federal government payments to industry, 1997-1998 to 2001-2002

88F0006XIE2004012
ISSN: 1706-8967
ISBN: 0-662-37653-6

July 2004

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Statistics Canada

106-02336/

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**Symbols**

The following standard symbols are used in Statistics Canada publications:

| | |
|---|---|
| . | not available for any reference period |
| .. | not available for a specific reference period |
| ... | not applicable |
| 0 | true zero or a value rounded to zero |
| $0^s$ | value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded |
| $^p$ | preliminary |
| $^r$ | revised |
| x | suppressed to meet the confidentiality requirements of the Statistics Act |
| $^E$ | use with caution |
| F | too unreliable to be published |

**NOTE: Due to rounding, components may not add to totals**

## Abbreviations

| | |
|---|---|
| R&D | Research and Experimental Development |
| S&T | Science and Technology |
| OECD | Organization for Economic Co-operation and Development |
| NAICS | North American Industry Classification System |
| NSE | Natural Sciences and Engineering |
| SSH | Social Sciences and Humanities |
| ACOA | Atlantic Canada Opportunities Agency |
| AECL | Atomic Energy of Canada Limited |
| CSA | Canadian Space Agency |
| IND | Industry Canada |
| NRCan | Natural Resources Canada |
| NDEF | National Defence |
| NRC | National Research Council |
| NSERC | Natural Sciences & Engineering Research Council |

## Acknowledgements

The production of this Working Paper was supported by the Innovation Policy Branch of Industry Canada.

A number of persons helped complete this exercise and their assistance is appreciated, in particular, Yvonne Tremblay, Ginette McConnell and Jean-Denis Lajoie.

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## Introduction

This document focuses on Federal Government payments to business enterprises for S&T and R&D. This paper provides an overview of currently available data on federal government support for scientific activities by industry groups.

Departments and agencies of the federal government are asked to provide a detailed listing of the recipients of federal payments made in connection with a scientific activity. The statistics presented are derived from the results of the last five of those exercises, which covered the years 1997-1998 to 2001-2002.

Extramural payments take the form of a contract, a grant or a contribution. Contracts, normally awarded as a result of competitive bidding, provide a service or perform an activity required by a federal department or agency. Almost all of these contracts are awarded to business enterprises. A grant is an unconditional payment to a recipient and the government does not necessarily receive any goods or services as a direct result. A contribution requires an agreement between the government and recipient specifying the terms and conditions under which funds will be paid to the recipient. Payments for university and industry support programs are normally in the form of a grant or contribution.

All recipients of grants, contributions or contracts in the business enterprises sector were classified (see Appendix II) with the 2002 North American Industry Classification System (Catalogue No. 12-501-XPE). This analysis covers the natural sciences and engineering only as the values for recipients of social science payments amounted to less than 5% of the total aggregate value of federal payments to the business enterprise sector.

Scientific and technological (S&T) activities are required for the generation, dissemination or initial application of the new S&T knowledge. The central activity is scientific research and experimental development (R&D). In addition there are a number of activities closely related to R&D, termed related scientific activities (RSA). Federal government RSA in the natural sciences are: scientific data collection, information services, testing and standardization, feasibility studies, museum services and education support.

R&D is creative work undertaken on a systematic basis to increase the stock of scientific and technical knowledge and to use this knowledge in new applications. From R&D activities, carried out in Canada and other countries, will come many of the new products and processes, the new ideas and ways of looking at things that will shape our future.

## Highlights

- Over the five years between 1997-1998 and 2001-2002, the Federal government distributed $4.5 billion to business enterprises for S&T activities. More than two thirds of this amount could be distributed by industries ($3.1 billion). The manufacturing sector obtained $1.8 billion and the service sector received less than $1.4 billion. More than $1.3 billion could not be distributed by industries.

- Federal government payments are concentrated in five major industries. Aerospace products and parts, Other services, Other manufacturing industries, Architectural, engineering and related services and Navigational, measuring, medical and control instruments (see Text table 1).

- Aerospace products and parts received the largest portion of federal S&T payments. Over the course of the five years, more than $700 million has been allocated to this industry. During the same period, Navigational, measuring, medical and control instruments and Information and cultural industries received slightly less than $400 million and $300 million respectively (see Table 1).

- In 2001-2002, Industry Canada accounted for 51% of the R&D payments to business enterprises, followed by the Canadian Space Agency (16%) and National Defence (12%) (see Text table 5).

- In 2001-2002, Ontario accounted for 51% of all R&D activity in Canada, with the largest concentration in Architectural, engineering and related services and Communications equipment industry. Eighty-three percent of the R&D payments to the Aerospace products and parts industry were concentrated in Quebec. This represents 48% of all R&D in this province (see Text table 7).

**Text table 1. Concentration of federal S&T payments among selected industries, 1997-1998 to 2001-2002**

| Selected industries | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 |
|---|---|---|---|---|---|
| | percent of payments | | | | |
| Agriculture, forestry, fishing and hunting | 0 | 0 | 1 | 1 | 1 |
| Mining and oil and gas extraction | 0 | 0 | 0 | 0 | 0 |
| Utilities - Total | 0 | 0 | 1 | 1 | 0 |
| Construction | 0 | 1 | 1 | 0 | 1 |
| Machinery | 1 | 1 | 1 | 3 | 5 |
| Communications equipment | 3 | 2 | 2 | 5 | 4 |
| Navigational, measuring, medical and control instruments | 3 | 5 | 23 | 7 | 6 |
| Aerospace products and parts | 19 | 25 | 8 | 11 | 14 |
| Other manufacturing industries | 10 | 5 | 12 | 11 | 9 |
| Architectural, engineering and related services | 6 | 5 | 4 | 9 | 8 |
| Computer system design and related services | 5 | 11 | 4 | 4 | 3 |
| Scientific research and development | 3 | 4 | 6 | 4 | 5 |
| Other services | 20 | 9 | 9 | 11 | 19 |
| Unspecified | 30 | 32 | 28 | 33 | 25 |
| | in millions of dollars | | | | |
| **Total all industries** | **867** | **920** | **901** | **813** | **1,038** |

**Source:** Appendix I, Table 1.

**Chart 1. Estimated relative 2001-2002 federal S&T payments for selected industries**

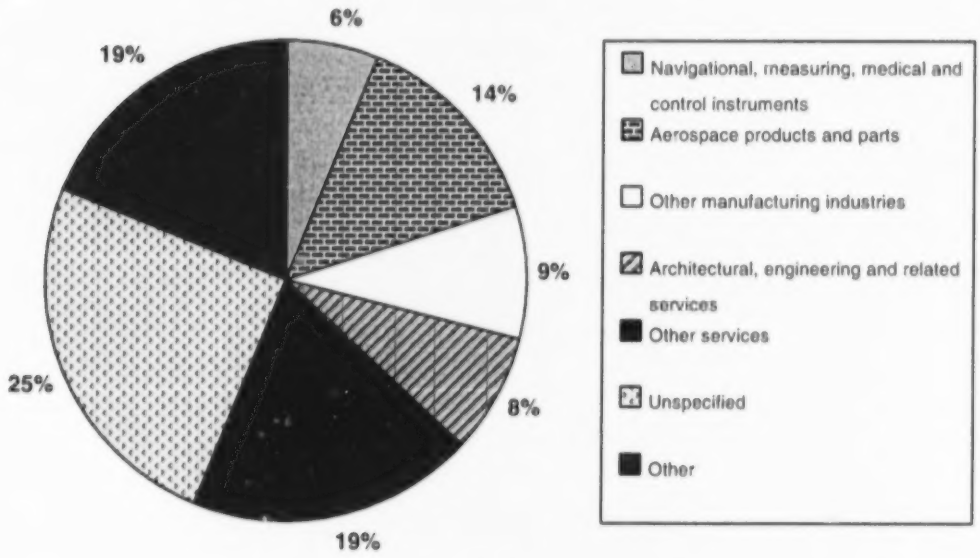
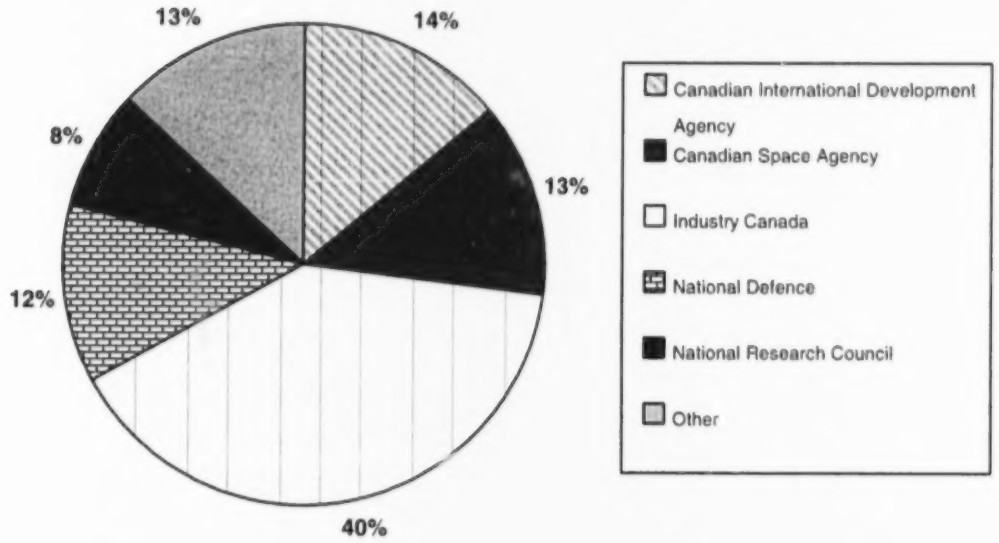



**Chart 2. Concentration of federal S&T payments by major department or agency, 2001-2002**



**Text table 2. Concentration of federal S&T payments by major department or agency, 1997-1998 to 2001-2002**

| Major department or agency | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 |
|---|---|---|---|---|---|---|---|---|---|---|
| | percent of total payments | | | | | percent identified by NAICS | | | | |
| Atlantic Canada Opportunities Agency | 1 | 1 | 2 | 2 | 1 | 98 | 96 | 83 | 92 | 88 |
| Canadian Economic Development for Quebec Regions | 1 | 0 | 1 | 1 | 1 | 77 | 94 | 73 | 94 | 81 |
| Canadian International Development Agency | 14 | 14 | 15 | 18 | 14 | 0 | 0 | 0 | 0 | 0 |
| Canadian Space Agency | 14 | 24 | 24 | 13 | 13 | 100 | 96 | 97 | 96 | 99 |
| Environment Canada | 3 | 4 | 4 | 4 | 4 | 63 | 62 | 52 | 38 | 25 |
| Industry Canada | 34 | 25 | 21 | 29 | 40 | 100 | 100 | 100 | 100 | 98 |
| National Defence | 14 | 13 | 13 | 14 | 12 | 51 | 47 | 38 | 33 | 64 |
| National Research Council | 9 | 10 | 10 | 10 | 8 | 27 | 28 | 89 | 82 | 74 |
| Natural Resources Canada | 4 | 4 | 6 | 4 | 3 | 95 | 95 | 98 | 93 | 96 |
| Western Economic Diversification Canada | 1 | 0 | 1 | 1 | 1 | 100 | 100 | 94 | 94 | 94 |
| Other | 5 | 5 | 3 | 4 | 3 | 82 | 70 | 88 | 90 | 83 |
| | in millions of dollars | | | | | | | | | |
| **Total payments** | **867** | **920** | **901** | **813** | **1,038** | **70** | **68** | **72** | **67** | **75** |

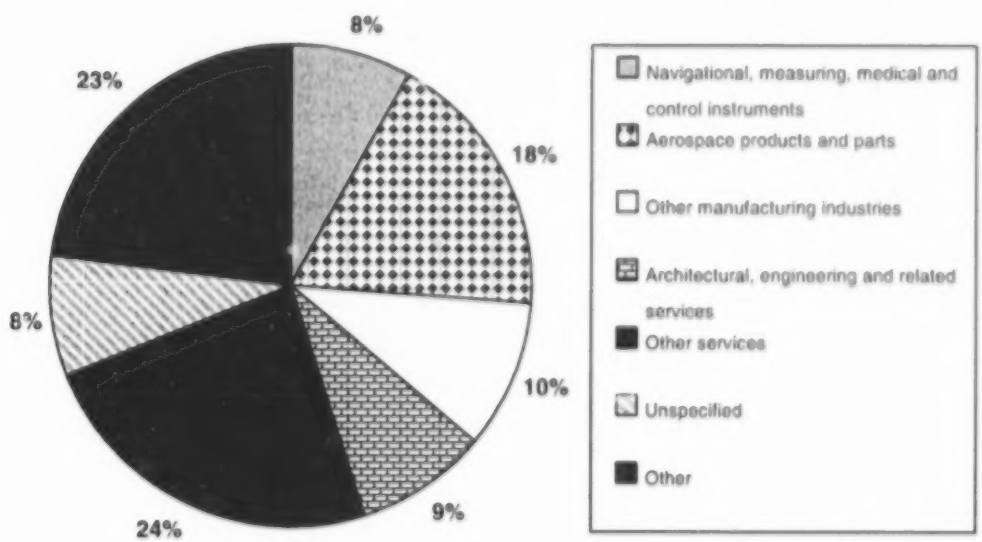
**Source:** Appendix I, Table 8.

**Text table 3. Concentration of federal R&D payments among selected industries, 1997-1998 to 2001-2002**

| Selected industries | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 |
|---|---|---|---|---|---|
| | | | percent of payments | | |
| Agriculture, forestry, fishing and hunting | 1 | 0 | 1 | 0 | 1 |
| Mining and oil and gas extraction | 0 | 0 | 0 | 0 | 0 |
| Utilities - Total | 0 | 1 | 1 | 1 | 0 |
| Construction | 0 | 0 | 1 | 1 | 0 |
| Machinery | 1 | 1 | 2 | 4 | 7 |
| Communications equipment | 4 | 2 | 3 | 6 | 5 |
| Navigational, measuring, medical and control instruments | 3 | 6 | 29 | 9 | 8 |
| Aerospace products and parts | 23 | 31 | 9 | 15 | 18 |
| Other manufacturing industries | 13 | 7 | 14 | 14 | 10 |
| Architectural, engineering and related services | 7 | 5 | 5 | 11 | 9 |
| Computer system design and related services | 6 | 13 | 4 | 5 | 4 |
| Scientific research and development | 3 | 5 | 7 | 5 | 6 |
| Other services | 22 | 9 | 10 | 13 | 24 |
| Unspecified | 17 | 20 | 14 | 16 | 8 |
| | | | in millions of dollars | | |
| **Total all industries** | **697** | **745** | **717** | **621** | **825** |

**Source:** Appendix I, Table 5.

**Chart 3. Estimated relative 2001-2002 federal R&D payments for selected industries**



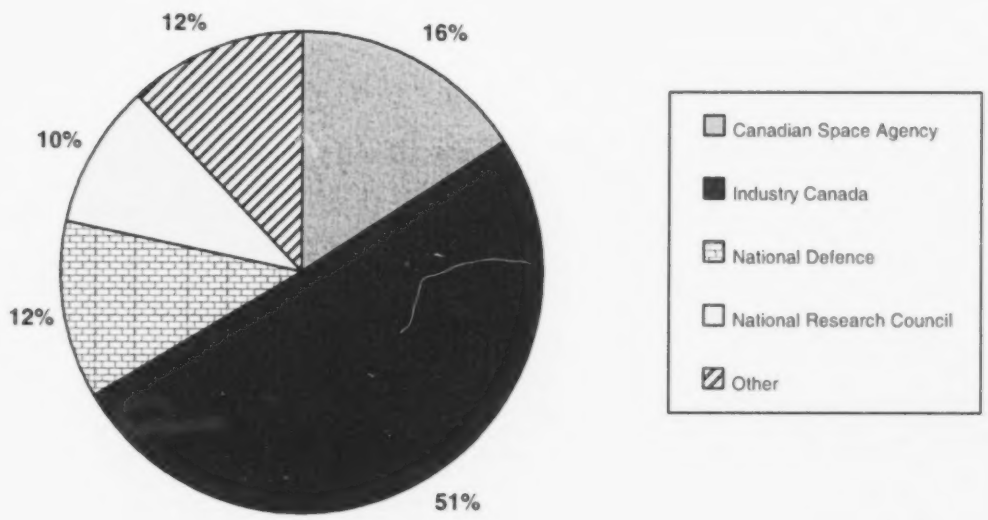
## Text table 4. Federal R&D payments by major industry, department and type, 1997-1998 to 2001-2002

| Industry | Payment | Department | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | in millions of dollars | | | | | percent | | | | |
| Aerospace products and parts | Grants and contributions | IND | 118.0 | 127.5 | 64.4 | 90.6 | 117.8 | 72.8 | 54.4 | 96.4 | 98.0 | 81.1 |
| | | Other | 0.3 | 1.5 | 0.6 | 0.4 | 0.4 | 0.2 | 0.7 | 0.8 | 0.4 | 0.3 |
| | | Total | 118.3 | 129.0 | 65.0 | 91.0 | 118.2 | 73.0 | 55.1 | 97.2 | 98.4 | 81.4 |
| | Contracts | CSA | 40.3 | 104.2 | 0.7 | 0.2 | 2.1 | 24.9 | 44.5 | 1.1 | 0.2 | 1.4 |
| | | NDEF | 3.1 | 0.8 | 1.1 | 1.2 | 24.9 | 1.9 | 0.3 | 1.7 | 1.3 | 17.1 |
| | | Other | 0.3 | 0.3 | 0.1 | 0.0 | 0.0 | 0.2 | 0.1 | 0.0 | 0.1 | 0.1 |
| | | Total | 43.7 | 105.3 | 1.9 | 1.4 | 27.0 | 27.0 | 44.9 | 2.8 | 1.6 | 18.6 |
| | **Total** | | **162.0** | **234.3** | **66.8** | **92.4** | **145.1** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** |
| Architectural, engineering and related services | Grants and contributions | ACOA | 1.3 | 1.2 | 0.3 | 1.5 | 0.1 | 2.5 | 3.0 | 1.0 | 2.2 | 0.1 |
| | | IND | 9.7 | 7.4 | 4.5 | 3.2 | 7.0 | 19.2 | 19.0 | 13.1 | 4.7 | 9.6 |
| | | NRCan | 2.8 | 3.2 | 3.1 | 4.1 | 3.0 | 5.5 | 8.2 | 9.1 | 6.0 | 4.2 |
| | | NRC | 4.4 | 3.7 | 6.4 | 7.3 | 6.4 | 8.6 | 9.4 | 18.6 | 10.8 | 8.8 |
| | | NSERC | 4.8 | 0.6 | 0.5 | 0.3 | 0.2 | 9.4 | 1.5 | 1.6 | 0.5 | 0.3 |
| | | Other | 0.4 | 0.0 | 0.9 | 1.0 | 0.8 | 0.9 | 0.2 | 2.3 | 1.6 | 1.0 |
| | | Total | 23.4 | 16.1 | 15.7 | 17.4 | 17.5 | 46.1 | 41.3 | 45.7 | 25.8 | 24.0 |
| | Contracts | AECL | 1.1 | 1.4 | 0.5 | 0.0 | 0.1 | 2.1 | 3.5 | 1.5 | 0.1 | 0.1 |
| | | CSA | 14.4 | 7.2 | 5.3 | 37.4 | 43.1 | 28.3 | 18.4 | 15.5 | 55.5 | 59.1 |
| | | NDEF | 6.6 | 6.5 | 5.7 | 4.5 | 4.8 | 13.1 | 16.7 | 16.7 | 6.7 | 6.6 |
| | | NRCan | 1.9 | 2.8 | 2.7 | 2.1 | 1.3 | 3.7 | 7.1 | 7.8 | 3.0 | 1.8 |
| | | TC | 2.0 | 3.7 | 3.4 | 4.8 | 5.8 | 3.9 | 9.4 | 9.9 | 7.2 | 8.0 |
| | | Other | 1.3 | 1.3 | 1.0 | 1.2 | 0.3 | 2.6 | 3.6 | 2.9 | 1.7 | 0.4 |
| | | Total | 27.3 | 22.9 | 18.6 | 50.0 | 55.4 | 53.9 | 58.7 | 54.3 | 74.2 | 76.0 |
| | **Total** | | **50.7** | **39.1** | **34.3** | **67.3** | **72.9** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** |
| Computer system design and related services | Grants and contributions | ACOA | 1.8 | 1.6 | 2.9 | 4.7 | 2.1 | 4.4 | 1.6 | 9.2 | 16.1 | 6.5 |
| | | IND | 2.7 | 1.2 | 1.5 | 0.4 | 1.4 | 6.4 | 1.2 | 4.7 | 1.5 | 4.3 |
| | | NRC | 1.7 | 3.7 | 12.0 | 8.0 | 11.6 | 4.2 | 3.9 | 38.3 | 27.8 | 35.7 |
| | | Other | 1.6 | 0.6 | 1.6 | 2.1 | 1.4 | 3.8 | 0.6 | 5.1 | 7.2 | 4.1 |
| | | Total | 7.8 | 7.1 | 18.0 | 15.2 | 16.5 | 18.6 | 7.3 | 57.3 | 52.6 | 50.6 |
| | Contracts | CSA | 12.2 | 71.4 | 2.7 | 4.9 | 4.5 | 29.2 | 74.2 | 8.6 | 16.8 | 13.9 |
| | | NDEF | 19.7 | 15.1 | 9.3 | 7.8 | 10.8 | 47.1 | 15.7 | 29.6 | 27.1 | 33.3 |
| | | NRCan | 1.3 | 1.6 | 0.6 | 0.5 | 0.0 | 3.2 | 1.7 | 2.1 | 1.9 | 0.0 |
| | | Other | 0.8 | 1.1 | 0.8 | 0.5 | 0.8 | 1.9 | 1.1 | 2.4 | 1.6 | 2.2 |
| | | Total | 34.0 | 89.2 | 13.4 | 13.7 | 16.1 | 81.4 | 92.7 | 42.7 | 47.4 | 49.4 |
| | **Total** | | **41.8** | **96.2** | **31.4** | **28.9** | **32.5** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** |

**Text table 5. Concentration of federal R&D payments by major department or agency, 1997-1998 to 2001-2002**

| Major department or agency | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 |
|---|---|---|---|---|---|---|---|---|---|---|
| | percent of total payments | | | | | percent identified by NAICS | | | | |
| Atlantic Canada Opportunities Agency | 1 | 2 | 2 | 2 | 1 | 98 | 96 | 83 | 92 | 88 |
| Canadian Economic Development for Quebec Regions | 1 | 1 | 1 | 1 | 1 | 77 | 94 | 73 | 94 | 81 |
| Canadian Space Agency | 17 | 30 | 30 | 16 | 16 | 100 | 96 | 97 | 98 | 99 |
| Environment Canada | 1 | 1 | 1 | 1 | 1 | 22 | 38 | 17 | 16 | 14 |
| Industry Canada | 43 | 30 | 27 | 38 | 51 | 100 | 100 | 100 | 100 | 98 |
| National Defence | 15 | 14 | 15 | 18 | 12 | 57 | 51 | 42 | 36 | 84 |
| National Research Council | 11 | 13 | 12 | 14 | 10 | 27 | 28 | 89 | 82 | 74 |
| Natural Resources Canada | 4 | 4 | 7 | 5 | 3 | 95 | 96 | 98 | 93 | 97 |
| Western Economic Diversification Canada | 1 | 0 | 1 | 1 | 1 | 100 | 100 | 97 | 94 | 94 |
| Other | 6 | 5 | 4 | 4 | 4 | 78 | 66 | 90 | 92 | 86 |
| | in millions of dollars | | | | | | | | | |
| **Total payments** | **697** | **745** | **717** | **621** | **825** | **83** | **80** | **87** | **84** | **92** |

**Chart 4. Concentration of federal R&D payments by major department or agency, 2001-2002**



**Text table 6. Concentration of federal S&T payments among selected industries, by region, 2001-2002**

| Selected industries | Atlantic Provinces | Que.[1] | Mtl. | Ont.[2] | Tor. | Man. | Sask. | Alta. | B.C. | NCR | Total[3] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | in thousands of dollars | | | | | | | | | | |
| Agriculture, forestry, fishing and hunting | 2,066 | 256 | 1,781 | 437 | 0 | 33 | 192 | 75 | 454 | 212 | 5,506 |
| Mining and oil and gas extraction | 136 | 170 | 85 | 533 | 1,547 | 0 | 15 | 310 | 147 | 5 | 2,948 |
| Utilities – Total | 59 | 97 | 161 | 75 | 1,238 | 0 | 0 | 70 | 41 | 0 | 1,741 |
| Construction | 543 | 195 | 660 | 2,615 | 162 | 44 | 609 | 10 | 284 | 334 | 5,456 |
| Machinery | 736 | 1,883 | 36,445 | 5,603 | 6,384 | 25 | 144 | 277 | 1,382 | 0 | 52,879 |
| Communications equipment | 0 | 0 | 4,146 | 22,801 | 1,617 | 5 | 18 | 777 | 2,915 | 10,205 | 42,484 |
| Navigational, measuring, medical and control instruments | 7,595 | 149 | 1,828 | 602 | 27,418 | 9,458 | 4,837 | 690 | 11,564 | 1,609 | 65,752 |
| Aerospace products and parts | 4,154 | 9 | 120,659 | 1,079 | 18,108 | 8 | 0 | 180 | 586 | 358 | 145,141 |
| Other manufacturing industries | 3,733 | 15,608 | 4,719 | 8,518 | 31,819 | 866 | 656 | 1,260 | 17,489 | 7,441 | 92,247 |
| Architectural, engineering and related services | 4,373 | 3,013 | 7,975 | 3,602 | 38,351 | 1,085 | 396 | 2,254 | 4,798 | 10,402 | 76,363 |
| Computer system design and related services | 4,342 | 3,310 | 4,152 | 2,278 | 3,794 | 322 | 258 | 1,717 | 3,913 | 9,469 | 33,555 |
| Scientific research and development | 1,740 | 1,461 | 7,120 | 7,774 | 6,428 | 560 | 484 | 6,919 | 3,764 | 10,849 | 47,114 |
| Other services | 5,575 | 12,885 | 12,619 | 7,516 | 11,081 | 912 | 1,394 | 3,191 | 5,016 | 145,761 | 206,024 |
| Unspecified industry code | 5,717 | 7,347 | 6,491 | 10,746 | 6,449 | 1,416 | 1,069 | 9,035 | 5,774 | 6,091 | 261,093 |
| **Total all industries** | **40,769** | **46,383** | **208,841** | **74,179** | **154,396** | **14,734** | **10,072** | **26,765** | **58,127** | **202,736** | **1,038,303** |
| **Percent** | **3.9** | **4.5** | **20.1** | **7.1** | **14.9** | **1.4** | **1.0** | **2.6** | **5.6** | **19.5** | **100.0** |

1. Excluding Montréal (Mtl.) and National Capital Region (NCR).
2. Excluding Toronto (Tor.) and National Capital Region (NCR).
3. Includes region unallocated and Yukon, Northwest Territories and Nunavut .

**Text table 7. Concentration of federal R&D payments among selected industries, by region, 2001-2002**

| Selected industries | Atlantic Provinces | Que.[1] | Mtl. | Ont.[2] | Tor. | Man. | Sask. | Alta. | B.C. | NCR | Total[3] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | in thousands of dollars | | | | | | |
| Agriculture, forestry, fishing and hunting | 2,057 | 244 | 1,761 | 391 | 0 | 33 | 183 | 75 | 422 | 212 | 5,378 |
| Mining and oil and gas extraction | 136 | 170 | 85 | 533 | 1,547 | 0 | 15 | 310 | 147 | 5 | 2,948 |
| Utilities – Total | 59 | 97 | 157 | 75 | 1,238 | 0 | 0 | 68 | 23 | 0 | 1,717 |
| Construction | 543 | 195 | 660 | 2,615 | 156 | 41 | 75 | 10 | 62 | 109 | 4,466 |
| Machinery | 736 | 1,817 | 36,445 | 5,603 | 6,344 | 25 | 144 | 277 | 1,382 | 0 | 52,773 |
| Communications equipment | 0 | 0 | 4,146 | 22,789 | 1,616 | 5 | 6 | 777 | 2,915 | 10,119 | 42,373 |
| Navigational, measuring, medical and control instruments | 7,595 | 145 | 1,828 | 535 | 27,414 | 9,458 | 4,837 | 690 | 11,490 | 1,609 | 65,603 |
| Aerospace products and parts | 4,154 | 9 | 120,659 | 1,079 | 18,108 | 8 | 0 | 180 | 586 | 358 | 145,141 |
| Other manufacturing industries | 3,674 | 15,572 | 4,645 | 8,399 | 31,401 | 866 | 628 | 1,069 | 17,288 | 7,430 | 91,110 |
| Architectural, engineering and related services | 4,148 | 2,999 | 7,921 | 3,420 | 38,070 | 336 | 392 | 2,194 | 4,365 | 8,979 | 72,928 |
| Computer system design and related services | 4,259 | 3,310 | 4,120 | 2,252 | 3,713 | 322 | 258 | 1,716 | 3,581 | 9,008 | 32,539 |
| Scientific research and development | 1,711 | 1,448 | 7,050 | 7,744 | 6,131 | 559 | 484 | 6,911 | 3,474 | 10,722 | 46,249 |
| Other services | 4,791 | 11,443 | 11,698 | 7,202 | 10,482 | 741 | 675 | 3,084 | 4,540 | 144,220 | 198,950 |
| Unspecified industry code | 4,824 | 6,648 | 5,980 | 9,638 | 5,412 | 752 | 1,046 | 8,397 | 3,967 | 5,476 | 63,042 |
| **Total all industries** | **38,687** | **44,097** | **207,155** | **72,275** | **151,632** | **13,146** | **8,743** | **25,758** | **54,242** | **198,247** | **825,217** |
| **Percent** | **4.7** | **5.3** | **25.1** | **8.8** | **18.4** | **1.6** | **1.1** | **3.1** | **6.6** | **24.0** | **100.0** |

1. Excluding Montréal (Mtl.) and National Capital Region (NCR).
2. Excluding Toronto (Tor.) and National Capital Region (NCR).
3. Includes region unallocated and Yukon, Northwest Territories and Nunavut.

**Appendix I**

**Tables 1 to 17**

## Table 1. Total federal payments to industry for S&T and R&D, by industry group, 1997-1998 to 2001-2002

| Industries | S&T | | | | | R&D | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 |
| | in millions of dollars | | | | | in millions of dollars | | | | |
| **Agriculture, forestry, fishing and hunting** | | | | | | | | | | |
| Agriculture | 1 | 0 | 2 | 2 | 2 | 1 | 0 | 2 | 2 | 2 |
| Forestry and logging | 1 | 1 | 5 | 3 | 2 | 1 | 1 | 5 | 3 | 2 |
| Fishing, hunting and trapping | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 |
| **Total agriculture, forestry, fishing and hunting** | **3** | **2** | **9** | **6** | **5** | **3** | **2** | **9** | **6** | **5** |
| **Mining and oil and gas extraction** | | | | | | | | | | |
| Oil and gas extraction | 1 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 0 | 2 |
| Mining | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 |
| **Total mining and oil and gas extraction** | **2** | **1** | **1** | **1** | **3** | **1** | **2** | **1** | **1** | **3** |
| **Utilities** | | | | | | | | | | |
| Electric power | 0 | 3 | 5 | 3 | 1 | 0 | 3 | 5 | 3 | 1 |
| Other utilities | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| **Total utilities** | **0** | **4** | **6** | **4** | **2** | **0** | **3** | **6** | **4** | **2** |
| **Construction** | **2** | **3** | **6** | **4** | **5** | **1** | **2** | **5** | **3** | **4** |
| **Manufacturing** | | | | | | | | | | |
| Food | 0 | 1 | 2 | 2 | 2 | 0 | 1 | 2 | 2 | 1 |
| Beverage and tobacco | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Textile | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Wood products | 0 | 1 | 9 | 5 | 6 | 0 | 1 | 9 | 5 | 6 |
| Paper | 8 | 5 | 15 | 6 | 4 | 8 | 5 | 15 | 6 | 4 |
| Printing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Petroleum and coal products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pharmaceutical and medicine | 4 | 6 | 9 | 6 | 9 | 4 | 6 | 9 | 6 | 9 |
| Other chemicals | 2 | 6 | 18 | 13 | 8 | 2 | 6 | 18 | 13 | 8 |
| Plastic products | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 |
| Rubber products | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 2 | 1 |
| Non-metallic mineral products | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| Primary metal (ferrous) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Primary metal (non-ferrous) | 2 | 0 | 1 | 0 | 0 | 2 | 0 | 1 | 0 | 0 |
| Fabricated metal products | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Machinery | 4 | 6 | 12 | 23 | 53 | 4 | 5 | 12 | 23 | 53 |
| Computer and peripheral equipment | 8 | 4 | 12 | 15 | 18 | 8 | 4 | 11 | 15 | 18 |
| Communications equipment | 27 | 17 | 20 | 39 | 43 | 27 | 17 | 20 | 39 | 42 |
| Semiconductor and other electronic componants | 2 | 1 | 2 | 16 | 17 | 2 | 1 | 2 | 16 | 17 |
| Navigational, measuring, medical and control instruments | 22 | 42 | 207 | 52 | 66 | 22 | 42 | 207 | 52 | 66 |
| Other computer and electronic products | 1 | 0 | 2 | 1 | 1 | 1 | 0 | 2 | 1 | 1 |
| Electrical equipment, appliance and components | 4 | 6 | 9 | 11 | 11 | 4 | 6 | 8 | 11 | 11 |
| Motor vehicle and parts | 18 | 13 | 14 | 2 | 2 | 17 | 13 | 14 | 2 | 2 |
| Aerospace products and parts | 162 | 235 | 67 | 93 | 145 | 162 | 234 | 67 | 93 | 145 |
| All other transportation equipment | 31 | 0 | 1 | 0 | 0 | 31 | 0 | 1 | 0 | 0 |
| Furniture and related products | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other manufacturing industries | 8 | 3 | 6 | 7 | 7 | 8 | 3 | 6 | 7 | 7 |
| **Total manufacturing** | **309** | **351** | **413** | **298** | **399** | **307** | **349** | **412** | **298** | **397** |
| **Services** | | | | | | | | | | |
| Wholesale trade | 6 | 8 | 9 | 11 | 8 | 5 | 7 | 9 | 10 | 7 |
| Retail trade | 5 | 2 | 2 | 2 | 1 | 5 | 2 | 2 | 2 | 1 |
| Transportation and warehousing | 4 | 5 | 2 | 2 | 4 | 4 | 3 | 1 | 2 | 4 |
| Information and cultural industries | 99 | 21 | 11 | 16 | 137 | 96 | 21 | 11 | 16 | 137 |
| Finance, insurance and real estate | 3 | 2 | 5 | 6 | 4 | 3 | 1 | 4 | 5 | 3 |
| Architectural, engineering and related services | 54 | 43 | 37 | 72 | 76 | 51 | 39 | 34 | 67 | 73 |
| Computer system design and related services | 44 | 100 | 34 | 31 | 34 | 42 | 96 | 31 | 29 | 33 |
| Management, scientific and technical consulting services | 21 | 13 | 17 | 14 | 13 | 16 | 10 | 12 | 11 | 12 |
| Scientific research and development | 25 | 36 | 50 | 33 | 47 | 24 | 33 | 49 | 32 | 46 |
| Health care and social assistance | 1 | 2 | 4 | 5 | 14 | 1 | 2 | 4 | 5 | 14 |
| All other services | 29 | 31 | 39 | 37 | 25 | 18 | 21 | 31 | 31 | 21 |
| **Total services** | **291** | **263** | **210** | **229** | **363** | **265** | **235** | **188** | **210** | **351** |
| **Unspecified industry code** | **260** | **296** | **256** | **271** | **261** | **120** | **152** | **96** | **99** | **63** |
| **Total all industries** | **867** | **920** | **901** | **813** | **1,038** | **697** | **745** | **717** | **621** | **825** |

## Table 2. Total federal S&T payments to industry, by industry group, 1997-1998 to 2001-2002

| Industries | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 |
|---|---|---|---|---|---|---|---|---|---|---|
| | in millions of dollars | | | | | percent | | | | |
| **Agriculture, forestry, fishing and hunting** | | | | | | | | | | |
| Agriculture | 1 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 |
| Forestry and logging | 1 | 1 | 5 | 3 | 2 | 0 | 0 | 1 | 1 | 1 |
| Fishing, hunting and trapping | 1 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| **Total agriculture, forestry, fishing and hunting** | **3** | **2** | **9** | **6** | **5** | **0** | **0** | **1** | **1** | **1** |
| **Mining and oil and gas extraction** | | | | | | | | | | |
| Oil and gas extraction | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| Mining | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| **Total mining and oil and gas extraction** | **2** | **1** | **1** | **1** | **3** | **0** | **0** | **0** | **0** | **0** |
| **Utilities** | | | | | | | | | | |
| Electric power | 0 | 3 | 5 | 3 | 1 | 0 | 0 | 1 | 1 | 0 |
| Other utilities | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| **Total utilities** | **0** | **4** | **6** | **4** | **2** | **0** | **0** | **1** | **1** | **0** |
| **Construction** | **2** | **3** | **6** | **4** | **5** | **0** | **1** | **1** | **0** | **1** |
| **Manufacturing** | | | | | | | | | | |
| Food | 0 | 1 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 |
| Beverage and tobacco | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Textile | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wood products | 0 | 1 | 9 | 5 | 6 | 0 | 0 | 1 | 1 | 1 |
| Paper | 8 | 5 | 15 | 6 | 4 | 1 | 1 | 2 | 1 | 0 |
| Printing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Petroleum and coal products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pharmaceutical and medicine | 4 | 6 | 9 | 6 | 9 | 1 | 1 | 1 | 1 | 1 |
| Other chemicals | 2 | 6 | 18 | 13 | 8 | 0 | 1 | 2 | 2 | 1 |
| Plastic products | 1 | 1 | 2 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| Rubber products | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 |
| Non-metallic mineral products | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Primary metal (ferrous) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Primary metal (non-ferrous) | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fabricated metal products | 3 | 3 | 3 | 3 | 3 | 0 | 0 | 1 | 0 | 0 |
| Machinery | 4 | 6 | 12 | 23 | 53 | 1 | 1 | 1 | 3 | 5 |
| Computer and peripheral equipment | 8 | 4 | 12 | 15 | 18 | 1 | 0 | 1 | 2 | 2 |
| Communications equipment | 27 | 17 | 20 | 39 | 43 | 3 | 2 | 2 | 5 | 4 |
| Semiconductor and other electronic components | 2 | 1 | 2 | 16 | 17 | 0 | 0 | 0 | 2 | 2 |
| Navigational, measuring, medical and control instruments | 22 | 42 | 207 | 52 | 66 | 3 | 5 | 23 | 7 | 6 |
| Other computer and electronic products | 1 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Electrical equipment, appliance and components | 4 | 6 | 9 | 11 | 11 | 0 | 1 | 1 | 1 | 1 |
| Motor vehicle and parts | 18 | 13 | 14 | 2 | 2 | 2 | 1 | 2 | 0 | 0 |
| Aerospace products and parts | 162 | 235 | 67 | 93 | 145 | 19 | 25 | 8 | 11 | 14 |
| All other transportation equipment | 31 | 0 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 0 |
| Furniture and related products | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other manufacturing industries | 8 | 3 | 6 | 7 | 7 | 1 | 0 | 1 | 1 | 1 |
| **Total manufacturing** | **309** | **351** | **413** | **298** | **399** | **36** | **38** | **46** | **37** | **38** |
| **Services** | | | | | | | | | | |
| Wholesale trade | 6 | 8 | 9 | 11 | 8 | 1 | 1 | 1 | 1 | 1 |
| Retail trade | 5 | 2 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 0 |
| Transportation and warehousing | 4 | 5 | 2 | 2 | 4 | 1 | 1 | 0 | 0 | 0 |
| Information and cultural industries | 99 | 21 | 11 | 16 | 137 | 11 | 3 | 1 | 2 | 13 |
| Finance, insurance and real estate | 3 | 2 | 5 | 6 | 4 | 0 | 0 | 1 | 1 | 1 |
| Architectural, engineering and related services | 54 | 43 | 37 | 72 | 76 | 6 | 5 | 4 | 9 | 8 |
| Computer system design and related services | 44 | 100 | 34 | 31 | 34 | 5 | 11 | 4 | 4 | 3 |
| Management, scientific and technical consulting services | 21 | 13 | 17 | 14 | 13 | 3 | 1 | 2 | 2 | 1 |
| Scientific research and development | 25 | 36 | 50 | 33 | 47 | 3 | 4 | 6 | 4 | 5 |
| Health care and social assistance | 1 | 2 | 4 | 5 | 14 | 0 | 0 | 0 | 0 | 1 |
| All other services | 29 | 31 | 39 | 37 | 25 | 3 | 3 | 4 | 5 | 2 |
| **Total services** | **291** | **263** | **210** | **229** | **363** | **34** | **29** | **23** | **28** | **35** |
| **Unspecified industry code** | **260** | **296** | **256** | **271** | **261** | **30** | **32** | **28** | **33** | **25** |
| **Total all industries** | **867** | **920** | **901** | **813** | **1,038** | **100** | **100** | **100** | **100** | **100** |

**Table 3. Total federal payments to industry for S&T contracts, by industry group, 1997-1998 to 2001-2002**

| Industries | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 |
|---|---|---|---|---|---|---|---|---|---|---|
| | in millions of dollars | | | | | percent | | | | |
| **Agriculture, forestry, fishing and hunting** | | | | | | | | | | |
| Agriculture | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Forestry and logging | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fishing, hunting and trapping | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total agriculture, forestry, fishing and hunting** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| **Mining and oil and gas extraction** | | | | | | | | | | |
| Oil and gas extraction | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mining | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| **Total mining and oil and gas extraction** | **0** | **0** | **1** | **1** | **1** | **0** | **0** | **0** | **0** | **0** |
| **Utilities** | | | | | | | | | | |
| Electric power | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Other utilities | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total utilities** | **0** | **2** | **0** | **0** | **1** | **0** | **0** | **0** | **0** | **0** |
| **Construction** | **1** | **2** | **4** | **2** | **4** | **0** | **1** | **1** | **1** | **1** |
| **Manufacturing** | | | | | | | | | | |
| Food | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Beverage and tobacco | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Textile | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wood products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Paper | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Printing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Petroleum and coal products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pharmaceutical and medicine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other chemicals | 0 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 1 |
| Plastic products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rubber products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Non-metallic mineral products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Primary metal (ferrous) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Primary metal (non-ferrous) | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fabricated metal products | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| Machinery | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| Computer and peripheral equipment | 7 | 3 | 7 | 5 | 6 | 2 | 1 | 2 | 2 | 2 |
| Communications equipment | 24 | 7 | 8 | 7 | 11 | 8 | 2 | 2 | 3 | 4 |
| Semiconductor and other electronic components | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Navigational, measuring, medical and control instruments | 10 | 21 | 182 | 24 | 39 | 3 | 5 | 46 | 9 | 13 |
| Other computer and electronic products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Electrical equipment, appliance and components | 0 | 3 | 5 | 7 | 9 | 0 | 1 | 1 | 3 | 3 |
| Motor vehicle and parts | 4 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Aerospace products and parts | 44 | 106 | 2 | 2 | 27 | 14 | 25 | 1 | 1 | 9 |
| All other transportation equipment | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Furniture and related products | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other manufacturing industries | 2 | 2 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | 1 |
| **Total manufacturing** | **96** | **147** | **212** | **50** | **98** | **31** | **35** | **53** | **19** | **33** |
| **Services** | | | | | | | | | | |
| Wholesale trade | 4 | 6 | 3 | 2 | 3 | 1 | 1 | 1 | 1 | 1 |
| Retail trade | 3 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Transportation and warehousing | 2 | 3 | 1 | 2 | 3 | 0 | 1 | 0 | 0 | 1 |
| Information and cultural industries | 19 | 2 | 2 | 1 | 1 | 6 | 0 | 1 | 0 | 0 |
| Finance, insurance and real estate | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 1 | 0 |
| Architectural, engineering and related services | 31 | 26 | 21 | 55 | 58 | 10 | 6 | 5 | 21 | 20 |
| Computer system design and related services | 36 | 93 | 16 | 16 | 16 | 12 | 22 | 4 | 6 | 6 |
| Management, scientific and technical consulting services | 15 | 9 | 11 | 9 | 10 | 5 | 2 | 3 | 4 | 3 |
| Scientific research and development | 9 | 13 | 7 | 9 | 10 | 3 | 3 | 2 | 3 | 3 |
| Health care and social assistance | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 |
| All other services | 16 | 20 | 20 | 12 | 11 | 5 | 5 | 5 | 5 | 4 |
| **Total services** | **138** | **175** | **83** | **108** | **115** | **44** | **41** | **21** | **41** | **39** |
| **Unspecified industry code** | **78** | **97** | **100** | **104** | **80** | **25** | **23** | **25** | **39** | **27** |
| **Total all industries** | **313** | **423** | **400** | **265** | **299** | **100** | **100** | **100** | **100** | **100** |

## Table 4. Total federal payments to industry for S&T grants and contributions, by industry group, 1997-1998 to 2001-2002

| Industries | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 |
|---|---|---|---|---|---|---|---|---|---|---|
| | in millions of dollars | | | | | percent | | | | |
| **Agriculture, forestry, fishing and hunting** | | | | | | | | | | |
| Agriculture | 1 | 1 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 |
| Forestry and logging | 1 | 1 | 5 | 2 | 2 | 0 | 0 | 1 | 1 | 1 |
| Fishing, hunting and trapping | 1 | 0 | 2 | 1 | 1 | 0 | 0 | 1 | 0 | 0 |
| **Total agriculture, forestry, fishing and hunting** | **3** | **2** | **9** | **5** | **5** | **0** | **0** | **2** | **1** | **1** |
| **Mining and oil and gas extraction** | | | | | | | | | | |
| Oil and gas extraction | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| Mining | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total mining and oil and gas extraction** | **2** | **1** | **1** | **1** | **2** | **0** | **0** | **0** | **0** | **0** |
| **Utilities** | | | | | | | | | | |
| Electric power | 0 | 1 | 5 | 3 | 1 | 0 | 1 | 1 | 1 | 0 |
| Other utilities | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total utilities** | **0** | **2** | **6** | **4** | **1** | **0** | **1** | **1** | **1** | **0** |
| **Construction** | **1** | **2** | **2** | **2** | **1** | **0** | **0** | **0** | **0** | **0** |
| **Manufacturing** | | | | | | | | | | |
| Food | 0 | 1 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 |
| Beverage and tobacco | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Textile | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wood products | 0 | 1 | 9 | 5 | 6 | 0 | 0 | 2 | 1 | 1 |
| Paper | 8 | 5 | 14 | 6 | 3 | 1 | 1 | 3 | 1 | 1 |
| Printing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Petroleum and coal products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pharmaceutical and medicine | 4 | 6 | 8 | 6 | 9 | 1 | 1 | 2 | 1 | 1 |
| Other chemicals | 1 | 5 | 16 | 12 | 6 | 0 | 1 | 3 | 2 | 1 |
| Plastic products | 1 | 2 | 2 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| Rubber products | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 |
| Non-metallic mineral products | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Primary metal (ferrous) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Primary metal (non-ferrous) | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fabricated metal products | 1 | 2 | 2 | 2 | 2 | 0 | 1 | 1 | 1 | 0 |
| Machinery | 3 | 4 | 11 | 23 | 53 | 1 | 1 | 2 | 4 | 7 |
| Computer and peripheral equipment | 1 | 1 | 5 | 10 | 12 | 0 | 0 | 1 | 2 | 2 |
| Communications equipment | 3 | 10 | 13 | 32 | 32 | 1 | 2 | 3 | 6 | 4 |
| Semiconductor and other electronic components | 1 | 1 | 2 | 16 | 17 | 0 | 0 | 0 | 3 | 2 |
| Navigational, measuring, medical and control instruments | 12 | 21 | 26 | 28 | 26 | 2 | 4 | 5 | 5 | 4 |
| Other computer and electronic products | 1 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Electrical equipment, appliance and components | 4 | 2 | 4 | 4 | 2 | 1 | 1 | 1 | 1 | 0 |
| Motor vehicle and parts | 14 | 12 | 13 | 2 | 2 | 3 | 2 | 3 | 0 | 0 |
| Aerospace products and parts | 118 | 129 | 65 | 91 | 118 | 22 | 26 | 13 | 17 | 16 |
| All other transportation equipment | 31 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 |
| Furniture and related products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other manufacturing industries | 6 | 2 | 4 | 4 | 6 | 1 | 1 | 1 | 1 | 1 |
| **Total manufacturing** | **212** | **204** | **201** | **248** | **301** | **39** | **41** | **40** | **45** | **40** |
| **Services** | | | | | | | | | | |
| Wholesale trade | 2 | 2 | 7 | 9 | 5 | 1 | 0 | 1 | 1 | 1 |
| Retail trade | 2 | 1 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 |
| Transportation and warehousing | 3 | 2 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 0 |
| Information and cultural industries | 79 | 20 | 8 | 15 | 136 | 14 | 4 | 2 | 3 | 18 |
| Finance, insurance and real estate | 0 | 0 | 3 | 5 | 3 | 0 | 0 | 1 | 1 | 0 |
| Architectural, engineering and related services | 23 | 16 | 16 | 17 | 19 | 4 | 3 | 3 | 3 | 3 |
| Computer system design and related services | 8 | 7 | 18 | 15 | 17 | 2 | 2 | 4 | 3 | 2 |
| Management, scientific and technical consulting services | 6 | 4 | 6 | 4 | 3 | 1 | 1 | 1 | 1 | 1 |
| Scientific research and development | 16 | 23 | 42 | 24 | 37 | 3 | 5 | 9 | 4 | 5 |
| Health care and social assistance | 1 | 2 | 4 | 5 | 11 | 0 | 1 | 1 | 1 | 2 |
| All other services | 13 | 11 | 20 | 25 | 14 | 2 | 2 | 4 | 5 | 2 |
| **Total services** | **153** | **88** | **127** | **121** | **248** | **28** | **18** | **26** | **22** | **34** |
| **Unspecified industry code** | **183** | **198** | **155** | **167** | **181** | **33** | **40** | **31** | **31** | **25** |
| **Total all industries** | **554** | **497** | **501** | **548** | **739** | **100** | **100** | **100** | **100** | **100** |

## Table 5. Total federal R&D payments to industry, by industry group, 1997-1998 to 2001-2002

| Industries | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 |
|---|---|---|---|---|---|---|---|---|---|---|
| | in millions of dollars | | | | | percent | | | | |
| **Agriculture, forestry, fishing and hunting** | | | | | | | | | | |
| Agriculture | 1 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 |
| Forestry and logging | 1 | 1 | 5 | 3 | 2 | 0 | 0 | 1 | 0 | 1 |
| Fishing, hunting and trapping | 1 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| **Total agriculture, forestry, fishing and hunting** | **3** | **2** | **9** | **6** | **5** | **1** | **0** | **1** | **0** | **1** |
| **Mining and oil and gas extraction** | | | | | | | | | | |
| Oil and gas extraction | 1 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| Mining | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| **Total mining and oil and gas extraction** | **1** | **2** | **1** | **1** | **3** | **0** | **0** | **0** | **0** | **0** |
| **Utilities** | | | | | | | | | | |
| Electric power | 0 | 3 | 5 | 3 | 1 | 0 | 1 | 1 | 1 | 0 |
| Other utilities | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| **Total utilities** | **0** | **3** | **6** | **4** | **2** | **0** | **1** | **1** | **1** | **0** |
| **Construction** | **1** | **2** | **5** | **3** | **4** | **0** | **0** | **1** | **1** | **0** |
| **Manufacturing** | | | | | | | | | | |
| Food | 0 | 1 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 |
| Beverage and tobacco | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Textile | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wood products | 0 | 1 | 9 | 5 | 6 | 0 | 0 | 1 | 1 | 1 |
| Paper | 8 | 5 | 15 | 6 | 4 | 1 | 1 | 2 | 1 | 1 |
| Printing | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Petroleum and coal products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pharmaceutical and medicine | 4 | 6 | 9 | 6 | 9 | 1 | 1 | 1 | 1 | 1 |
| Other chemicals | 2 | 6 | 18 | 13 | 8 | 0 | 1 | 3 | 2 | 1 |
| Plastic products | 1 | 2 | 2 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| Rubber products | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 |
| Non-metallic mineral products | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Primary metal (ferrous) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Primary metal (non-ferrous) | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fabricated metal products | 3 | 3 | 3 | 3 | 3 | 0 | 0 | 1 | 1 | 0 |
| Machinery | 4 | 5 | 12 | 23 | 53 | 1 | 1 | 2 | 4 | 7 |
| Computer and peripheral equipment | 8 | 4 | 11 | 15 | 18 | 1 | 1 | 2 | 2 | 2 |
| Communications equipment | 27 | 17 | 20 | 39 | 42 | 4 | 2 | 3 | 6 | 5 |
| Semiconductor and other electronic components | 2 | 1 | 2 | 16 | 17 | 0 | 0 | 0 | 3 | 2 |
| Navigational, measuring, medical and control instruments | 22 | 42 | 207 | 52 | 66 | 3 | 6 | 29 | 9 | 8 |
| Other computer and electronic products | 1 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Electrical equipment, appliance and components | 4 | 6 | 8 | 11 | 11 | 1 | 1 | 1 | 2 | 1 |
| Motor vehicle and parts | 17 | 13 | 14 | 2 | 2 | 3 | 2 | 2 | 0 | 0 |
| Aerospace products and parts | 162 | 234 | 67 | 93 | 145 | 23 | 31 | 9 | 15 | 18 |
| All other transportation equipment | 31 | 0 | 1 | 0 | 0 | 5 | 0 | 0 | 0 | 0 |
| Furniture and related products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other manufacturing industries | 8 | 3 | 6 | 7 | 7 | 1 | 0 | 1 | 1 | 1 |
| **Total manufacturing** | **307** | **349** | **412** | **298** | **397** | **44** | **47** | **57** | **48** | **48** |
| **Services** | | | | | | | | | | |
| Wholesale trade | 5 | 7 | 9 | 10 | 7 | 1 | 1 | 1 | 1 | 1 |
| Retail trade | 5 | 2 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 0 |
| Transportation and warehousing | 4 | 3 | 1 | 2 | 4 | 1 | 1 | 0 | 0 | 0 |
| Information and cultural industries | 96 | 21 | 11 | 16 | 137 | 14 | 3 | 2 | 3 | 17 |
| Finance, insurance and real estate | 3 | 1 | 4 | 5 | 3 | 0 | 0 | 1 | 1 | 0 |
| Architectural, engineering and related services | 51 | 39 | 34 | 67 | 73 | 7 | 5 | 5 | 11 | 9 |
| Computer system design and related services | 42 | 96 | 31 | 29 | 33 | 6 | 13 | 4 | 5 | 4 |
| Management, scientific and technical consulting services | 16 | 10 | 12 | 11 | 12 | 2 | 1 | 2 | 2 | 2 |
| Scientific research and development | 24 | 33 | 49 | 32 | 46 | 3 | 5 | 7 | 5 | 6 |
| Health care and social assistance | 1 | 2 | 4 | 5 | 14 | 0 | 0 | 0 | 1 | 1 |
| All other services | 18 | 21 | 31 | 31 | 21 | 3 | 3 | 4 | 5 | 3 |
| **Total services** | **265** | **235** | **188** | **210** | **351** | **38** | **32** | **26** | **34** | **43** |
| **Unspecified industry code** | **120** | **152** | **96** | **99** | **63** | **17** | **20** | **14** | **16** | **8** |
| **Total all industries** | **697** | **745** | **717** | **621** | **825** | **100** | **100** | **100** | **100** | **100** |

## Table 6. Total federal payments to industry for R&D contracts, by industry group, 1997-1998 to 2001-2002

| Industries | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 |
|---|---|---|---|---|---|---|---|---|---|---|
| | in millions of dollars | | | | | percent | | | | |
| **Agriculture, forestry, fishing and hunting** | | | | | | | | | | |
| Agriculture | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Forestry and logging | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fishing, hunting and trapping | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total agriculture, forestry, fishing and hunting** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| **Mining and oil and gas extraction** | | | | | | | | | | |
| Oil and gas extraction | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mining | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| **Total mining and oil and gas extraction** | **0** | **0** | **1** | **1** | **1** | **0** | **0** | **0** | **0** | **0** |
| **Utilities** | | | | | | | | | | |
| Electric power | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Other utilities | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total utilities** | **0** | **1** | **0** | **0** | **0** | **0** | **1** | **0** | **0** | **0** |
| **Construction** | **0** | **1** | **3** | **1** | **3** | **0** | **0** | **1** | **1** | **2** |
| **Manufacturing** | | | | | | | | | | |
| Food | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Beverage and tobacco | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Textile | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wood products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Paper | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Printing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Petroleum and coal products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pharmaceutical and medicine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other chemicals | 0 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | 1 | 1 |
| Plastic products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rubber products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Non-metallic mineral products | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Primary metal (ferrous) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Primary metal (non-ferrous) | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fabricated metal products | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| Machinery | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Computer and peripheral equipment | 7 | 3 | 7 | 5 | 6 | 3 | 1 | 2 | 2 | 2 |
| Communications equipment | 24 | 7 | 8 | 7 | 11 | 9 | 2 | 3 | 3 | 5 |
| Semiconductor and other electronic components | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Navigational, measuring, medical and control instruments | 10 | 21 | 182 | 24 | 39 | 4 | 6 | 51 | 11 | 16 |
| Other computer and electronic products | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Electrical equipment, appliance and components | 0 | 4 | 5 | 7 | 9 | 0 | 1 | 1 | 3 | 4 |
| Motor vehicle and parts | 4 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Aerospace products and parts | 44 | 105 | 2 | 2 | 27 | 16 | 28 | 1 | 1 | 11 |
| All other transportation equipment | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Furniture and related products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other manufacturing industries | 2 | 2 | 2 | 3 | 1 | 1 | 0 | 1 | 1 | 1 |
| **Total manufacturing** | **96** | **146** | **211** | **50** | **98** | **35** | **38** | **59** | **22** | **41** |
| **Services** | | | | | | | | | | |
| Wholesale trade | 3 | 5 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 |
| Retail trade | 3 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Transportation and warehousing | 1 | 1 | 1 | 1 | 3 | 0 | 0 | 0 | 1 | 1 |
| Information and cultural industries | 17 | 1 | 2 | 1 | 1 | 6 | 0 | 1 | 0 | 0 |
| Finance, insurance and real estate | 2 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| Architectural, engineering and related services | 28 | 23 | 19 | 50 | 55 | 11 | 6 | 4 | 22 | 23 |
| Computer system design and related services | 34 | 89 | 14 | 14 | 16 | 13 | 23 | 4 | 6 | 7 |
| Management, scientific and technical consulting services | 10 | 6 | 6 | 7 | 9 | 4 | 3 | 2 | 3 | 4 |
| Scientific research and development | 8 | 10 | 7 | 9 | 10 | 3 | 3 | 2 | 4 | 4 |
| Health care and social assistance | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 |
| All other services | 6 | 14 | 11 | 8 | 8 | 2 | 4 | 3 | 4 | 3 |
| **Total services** | **112** | **151** | **62** | **92** | **106** | **42** | **40** | **17** | **41** | **44** |
| **Unspecified industry code** | **61** | **81** | **80** | **81** | **31** | **23** | **21** | **23** | **36** | **13** |
| **Total all industries** | **269** | **380** | **357** | **225** | **239** | **100** | **100** | **100** | **100** | **100** |

**Table 7. Total federal payments to industry for R&D grants and contributions, by industry group, 1997-1998 to 2001-2002**

| Industries | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 |
|---|---|---|---|---|---|---|---|---|---|---|
| | in millions of dollars | | | | | percent | | | | |
| **Agriculture, forestry, fishing and hunting** | | | | | | | | | | |
| Agriculture | 1 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 |
| Forestry and logging | 1 | 1 | 5 | 2 | 2 | 0 | 1 | 1 | 1 | 1 |
| Fishing, hunting and trapping | 1 | 1 | 2 | 1 | 1 | 0 | 0 | 1 | 0 | 0 |
| **Total agriculture, forestry, fishing and hunting** | **3** | **2** | **9** | **5** | **5** | **1** | **1** | **2** | **1** | **1** |
| **Mining and oil and gas extraction** | | | | | | | | | | |
| Oil and gas extraction | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| Mining | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total mining and oil and gas extraction** | **1** | **1** | **1** | **1** | **2** | **0** | **0** | **0** | **0** | **0** |
| **Utilities** | | | | | | | | | | |
| Electric power | 0 | 1 | 4 | 3 | 1 | 0 | 0 | 1 | 1 | 0 |
| Other utilities | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| **Total utilities** | **0** | **2** | **5** | **4** | **1** | **0** | **0** | **2** | **1** | **0** |
| **Construction** | **1** | **2** | **2** | **2** | **1** | **0** | **0** | **1** | **0** | **0** |
| **Manufacturing** | | | | | | | | | | |
| Food | 0 | 1 | 2 | 2 | 2 | 0 | 0 | 1 | 1 | 0 |
| Beverage and tobacco | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Textile | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wood products | 0 | 1 | 9 | 5 | 6 | 0 | 0 | 2 | 1 | 1 |
| Paper | 8 | 5 | 14 | 5 | 3 | 2 | 1 | 4 | 1 | 1 |
| Printing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Petroleum and coal products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pharmaceutical and medicine | 4 | 6 | 9 | 6 | 9 | 1 | 2 | 2 | 2 | 1 |
| Other chemicals | 1 | 5 | 16 | 12 | 6 | 0 | 2 | 5 | 3 | 1 |
| Plastic products | 1 | 1 | 2 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| Rubber products | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| Non-metallic mineral products | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Primary metal (ferrous) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Primary metal (non-ferrous) | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fabricated metal products | 1 | 2 | 2 | 2 | 3 | 1 | 1 | 1 | 1 | 1 |
| Machinery | 3 | 4 | 11 | 23 | 53 | 1 | 1 | 3 | 6 | 9 |
| Computer and peripheral equipment | 0 | 1 | 5 | 10 | 12 | 0 | 0 | 1 | 2 | 2 |
| Communications equipment | 3 | 10 | 13 | 32 | 31 | 1 | 3 | 4 | 8 | 5 |
| Semiconductor and other electronic components | 1 | 1 | 2 | 16 | 17 | 0 | 0 | 1 | 4 | 3 |
| Navigational, measuring, medical and control instruments | 12 | 21 | 26 | 28 | 27 | 3 | 6 | 7 | 7 | 5 |
| Other computer and electronic products | 1 | 0 | 2 | 2 | 1 | 0 | 0 | 1 | 1 | 0 |
| Electrical equipment, appliance and components | 4 | 2 | 4 | 4 | 2 | 1 | 1 | 1 | 1 | 1 |
| Motor vehicle and parts | 14 | 12 | 13 | 2 | 2 | 3 | 3 | 4 | 1 | 0 |
| Aerospace products and parts | 118 | 129 | 65 | 91 | 118 | 28 | 35 | 18 | 23 | 20 |
| All other transportation equipment | 31 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 |
| Furniture and related products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other manufacturing industries | 6 | 2 | 4 | 4 | 6 | 1 | 1 | 1 | 1 | 1 |
| **Total manufacturing** | **211** | **203** | **201** | **248** | **300** | **49** | **56** | **56** | **63** | **51** |
| **Services** | | | | | | | | | | |
| Wholesale trade | 2 | 1 | 7 | 9 | 4 | 1 | 1 | 2 | 2 | 1 |
| Retail trade | 2 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Transportation and warehousing | 3 | 2 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 0 |
| Information and cultural industries | 79 | 20 | 8 | 15 | 136 | 19 | 6 | 2 | 3 | 23 |
| Finance, insurance and real estate | 0 | 0 | 3 | 4 | 3 | 0 | 0 | 1 | 1 | 1 |
| Architectural, engineering and related services | 23 | 16 | 16 | 17 | 18 | 5 | 5 | 5 | 4 | 3 |
| Computer system design and related services | 8 | 7 | 18 | 15 | 16 | 2 | 2 | 5 | 4 | 3 |
| Management, scientific and technical consulting services | 6 | 4 | 6 | 4 | 3 | 1 | 1 | 2 | 1 | 1 |
| Scientific research and development | 16 | 23 | 42 | 24 | 37 | 4 | 6 | 12 | 6 | 6 |
| Health care and social assistance | 1 | 2 | 3 | 5 | 11 | 0 | 0 | 1 | 1 | 2 |
| All other services | 13 | 8 | 20 | 24 | 14 | 3 | 2 | 5 | 8 | 2 |
| **Total services** | **153** | **84** | **126** | **118** | **245** | **36** | **23** | **35** | **30** | **42** |
| **Unspecified industry code** | **59** | **71** | **16** | **18** | **32** | **14** | **20** | **4** | **5** | **6** |
| **Total all industries** | **428** | **365** | **360** | **396** | **586** | **100** | **100** | **100** | **100** | **100** |

**Table 8. Total federal S&T payments to industry, by department or agency, 1997-1998 to 2001-2002**

| Department or agency | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 |
|---|---|---|---|---|---|---|---|---|---|---|
| | in millions of dollars | | | | | percent | | | | |
| Atlantic Canada Opportunities Agency | 7 | 11 | 14 | 15 | 10 | 1 | 1 | 2 | 2 | 1 |
| Atomic Energy of Canada Limited | 13 | 16 | 5 | 5 | 6 | 1 | 2 | 1 | 1 | 1 |
| Canada Mortgage and Housing Corporation | 1 | 2 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 |
| Canadian Economic Development for Quebec Regions | 8 | 4 | 5 | 5 | 11 | 1 | 0 | 1 | 1 | 1 |
| Canadian International Development Agency | 124 | 127 | 139 | 147 | 148 | 14 | 14 | 15 | 18 | 14 |
| Canadian Nuclear Safety Commission | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Canadian Space Agency | 122 | 222 | 215 | 102 | 132 | 14 | 24 | 24 | 13 | 13 |
| Environment Canada | 25 | 34 | 32 | 30 | 36 | 3 | 4 | 4 | 4 | 4 |
| Fisheries and Oceans Canada | 5 | 7 | 1 | 1 | 2 | 1 | 1 | 0 | 0 | 0 |
| Health Canada | 0 | 2 | 1 | 1 | 3 | 0 | 0 | 0 | 0 | 0 |
| Industry Canada | 299 | 224 | 191 | 237 | 415 | 34 | 25 | 21 | 29 | 40 |
| National Defence | 118 | 117 | 120 | 118 | 127 | 14 | 13 | 13 | 14 | 12 |
| National Research Council | 76 | 94 | 89 | 84 | 81 | 9 | 10 | 10 | 10 | 8 |
| Natural Resources Canada | 31 | 36 | 54 | 36 | 28 | 4 | 4 | 6 | 4 | 3 |
| Natural Sciences and Engineering Research Council | 18 | 11 | 12 | 15 | 15 | 2 | 1 | 1 | 2 | 1 |
| Public Works and Government Services | 2 | 1 | 1 | 1 | 3 | 0 | 0 | 0 | 0 | 0 |
| Transport Canada | 9 | 9 | 8 | 6 | 8 | 1 | 1 | 1 | 1 | 1 |
| Western Economic Diversification Canada | 6 | 2 | 11 | 6 | 9 | 1 | 0 | 1 | 1 | 1 |
| Other | 3 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| **Total** | **867** | **920** | **901** | **813** | **1,038** | **100** | **100** | **100** | **100** | **100** |

**Table 9. Total federal R&D payments to industry, by department or agency, 1997-1998 to 2001-2002**

| Department or agency | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 |
|---|---|---|---|---|---|---|---|---|---|---|
| | in millions of dollars | | | | | percent | | | | |
| Atlantic Canada Opportunities Agency | 7 | 11 | 14 | 15 | 10 | 1 | 2 | 2 | 2 | 1 |
| Atomic Energy of Canada Limited | 13 | 16 | 5 | 5 | 6 | 2 | 2 | 1 | 1 | 1 |
| Canada Mortgage and Housing Corporation | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Canadian Economic Development for Quebec Regions | 8 | 4 | 5 | 5 | 11 | 1 | 1 | 1 | 1 | 1 |
| Canadian Space Agency | 122 | 221 | 214 | 100 | 130 | 17 | 30 | 30 | 16 | 16 |
| Environment Canada | 8 | 11 | 8 | 8 | 11 | 1 | 1 | 1 | 1 | 1 |
| Fisheries and Oceans Canada | 1 | 3 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| Health Canada | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| Industry Canada | 299 | 223 | 191 | 237 | 415 | 43 | 30 | 27 | 38 | 51 |
| National Defence | 105 | 107 | 111 | 108 | 97 | 15 | 14 | 15 | 18 | 12 |
| National Research Council | 76 | 94 | 89 | 84 | 81 | 11 | 13 | 12 | 14 | 10 |
| Natural Resources Canada | 25 | 29 | 48 | 30 | 26 | 4 | 4 | 7 | 5 | 3 |
| Natural Sciences and Engineering Research Council | 18 | 12 | 12 | 13 | 12 | 3 | 2 | 2 | 2 | 2 |
| Public Works and Government Services | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| Transport Canada | 8 | 8 | 7 | 6 | 8 | 1 | 1 | 1 | 1 | 1 |
| Western Economic Diversification Canada | 4 | 2 | 11 | 6 | 9 | 1 | 0 | 1 | 1 | 1 |
| Other | 1 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| **Total** | **697** | **745** | **717** | **621** | **825** | **100** | **100** | **100** | **100** | **100** |

**Table 10. Total federal payments to industry for S&T contracts, by department or agency, 1997-1998 to 2001-2002**

| Department or agency | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 |
|---|---|---|---|---|---|---|---|---|---|---|
| | in millions of dollars | | | | | percent | | | | |
| Atomic Energy of Canada Limited | 13 | 16 | 5 | 5 | 6 | 4 | 4 | 2 | 2 | 2 |
| Canada Mortgage and Housing Corporation | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Canadian Nuclear Safety Commission | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 |
| Canadian Space Agency | 122 | 221 | 213 | 90 | 106 | 39 | 52 | 54 | 34 | 35 |
| Environment Canada | 23 | 34 | 32 | 27 | 36 | 7 | 8 | 8 | 10 | 12 |
| Fisheries and Oceans Canada | 5 | 1 | 1 | 1 | 3 | 2 | 0 | 0 | 0 | 1 |
| Health Canada | 0 | 2 | 1 | 1 | 3 | 0 | 1 | 0 | 0 | 1 |
| National Defence | 118 | 117 | 120 | 118 | 127 | 38 | 28 | 30 | 45 | 42 |
| Natural Resources Canada | 17 | 21 | 17 | 13 | 5 | 6 | 5 | 4 | 5 | 2 |
| Public Works and Government Services | 2 | 1 | 1 | 1 | 3 | 1 | 0 | 0 | 1 | 1 |
| Transport Canada | 9 | 8 | 8 | 6 | 8 | 3 | 2 | 2 | 2 | 3 |
| Other | 3 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| **Total** | **313** | **423** | **400** | **265** | **299** | **100** | **100** | **100** | **100** | **100** |

**Table 11. Total federal payments to industry for R&D contracts, by department or agency, 1997-1998 to 2001-2002**

| Department or agency | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 |
|---|---|---|---|---|---|---|---|---|---|---|
| | in millions of dollars | | | | | percent | | | | |
| Atomic Energy of Canada Limited | 13 | 16 | 5 | 5 | 6 | 5 | 4 | 2 | 2 | 3 |
| Canadian Space Agency | 121 | 221 | 213 | 88 | 104 | 45 | 58 | 60 | 39 | 44 |
| Environment Canada | 7 | 10 | 8 | 8 | 11 | 3 | 3 | 2 | 4 | 5 |
| Fisheries and Oceans Canada | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 |
| Health Canada | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 0 | 1 | 1 |
| National Defence | 105 | 107 | 111 | 108 | 97 | 39 | 28 | 31 | 48 | 40 |
| Natural Resources Canada | 11 | 14 | 11 | 6 | 5 | 4 | 4 | 3 | 3 | 2 |
| Public Works and Government Services | 1 | 0 | 0 | 1 | 3 | 1 | 0 | 0 | 0 | 1 |
| Transport Canada | 8 | 8 | 7 | 6 | 8 | 3 | 2 | 2 | 3 | 3 |
| Other | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 |
| **Total** | **269** | **380** | **357** | **225** | **239** | **100** | **100** | **100** | **100** | **100** |

**Table 12. Total federal payments to industry for S&T grants and contributions, by department or agency, 1997-1998 to 2001-2002**

| Department or agency | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 |
|---|---|---|---|---|---|---|---|---|---|---|
| | in millions of dollars | | | | | percent | | | | |
| Atlantic Canada Opportunities Agency | 7 | 11 | 14 | 15 | 10 | 1 | 2 | 3 | 3 | 1 |
| Canada Mortgage and Housing Corporation | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Canadian Economic Development for Quebec Regions | 8 | 4 | 5 | 5 | 11 | 2 | 1 | 1 | 1 | 2 |
| Canadian International Development Agency | 124 | 127 | 139 | 147 | 148 | 22 | 26 | 28 | 27 | 20 |
| Canadian Space Agency | 0 | 1 | 1 | 12 | 26 | 0 | 0 | 0 | 2 | 4 |
| Environment Canada | 1 | 0 | 1 | 3 | 1 | 0 | 0 | 0 | 1 | 0 |
| Fisheries and Oceans Canada | 1 | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Industry Canada | 299 | 223 | 191 | 237 | 415 | 54 | 45 | 38 | 43 | 56 |
| National Research Council | 76 | 94 | 89 | 84 | 81 | 14 | 19 | 18 | 15 | 11 |
| Natural Resources Canada | 14 | 16 | 38 | 24 | 22 | 3 | 3 | 8 | 4 | 3 |
| Natural Sciences and Engineering Research Council | 18 | 12 | 12 | 15 | 15 | 3 | 2 | 2 | 3 | 2 |
| Western Economic Diversification Canada | 6 | 2 | 11 | 6 | 9 | 1 | 1 | 2 | 1 | 1 |
| Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total** | **554** | **497** | **501** | **548** | **739** | **100** | **100** | **100** | **100** | **100** |

**Table 13. Total federal payments to industry for R&D grants and contributions, by department or agency, 1997-1998 to 2001-2002**

| Department or agency | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 |
|---|---|---|---|---|---|---|---|---|---|---|
| | in millions of dollars | | | | | percent | | | | |
| Atlantic Canada Opportunities Agency | 7 | 11 | 14 | 15 | 10 | 2 | 3 | 4 | 4 | 2 |
| Canadian Economic Development for Quebec Regions | 8 | 4 | 5 | 5 | 11 | 2 | 1 | 1 | 1 | 2 |
| Canadian Space Agency | 0 | 1 | 1 | 12 | 26 | 0 | 0 | 0 | 3 | 4 |
| Fisheries and Oceans Canada | 1 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Industry Canada | 299 | 223 | 191 | 237 | 415 | 70 | 61 | 53 | 60 | 71 |
| National Research Council | 76 | 94 | 89 | 84 | 81 | 18 | 26 | 25 | 21 | 14 |
| Natural Resources Canada | 14 | 16 | 37 | 23 | 22 | 3 | 4 | 11 | 6 | 3 |
| Natural Sciences and Engineering Research Council | 18 | 12 | 12 | 13 | 12 | 4 | 3 | 3 | 3 | 2 |
| Western Economic Diversification Canada | 4 | 2 | 11 | 6 | 9 | 1 | 1 | 3 | 2 | 2 |
| Other | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total** | **428** | **365** | **360** | **396** | **586** | **100** | **100** | **100** | **100** | **100** |

## Table 14. Concentration of federal R&D payments among selected industries, by region, 1997-1998

| Selected industry | Atlantic Provinces | Que.[1] | Mtl. | Ont.[2] | Tor. | Man. | Sask. | Alta. | B.C. | NCR | Total[3] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | in thousands of dollars | | | | | | | | | | |
| Agriculture, forestry, fishing and hunting | 1,367 | 32 | 39 | 0 | 28 | 8 | 148 | 593 | 139 | 135 | 2,489 |
| Mining and oil and gas extraction | 0 | 181 | 143 | 300 | 0 | 0 | 0 | 667 | 139 | 0 | 1,430 |
| Utilities – Total | 0 | 45 | 297 | 0 | 25 | 0 | 0 | 0 | 86 | 0 | 453 |
| Construction | 76 | 366 | 36 | 216 | 0 | 15 | 0 | 88 | 235 | 13 | 1,045 |
| Machinery | 390 | 1,086 | 112 | 772 | 1,348 | 0 | 7 | 149 | 22 | 366 | 4,252 |
| Communications equipment | 0 | 0 | 69 | 1,838 | 8,320 | 0 | 0 | 0 | 1,773 | 15,150 | 27,150 |
| Navigational, measuring, medical and control instruments | 470 | 182 | 9,959 | 642 | 1,507 | 6,663 | 196 | 0 | 536 | 1,565 | 21,720 |
| Aerospace products and parts | 10 | 186 | 128,756 | 2,536 | 29,823 | 0 | 0 | 0 | 0 | 700 | 162,011 |
| Other manufacturing industries | 3,122 | 7,948 | 15,412 | 5,702 | 38,506 | 106 | 143 | 913 | 16,305 | 3,471 | 91,628 |
| Architectural, engineering and related services | 5,140 | 2,665 | 10,486 | 1,719 | 4,256 | 353 | 96 | 2,568 | 5,739 | 17,682 | 50,704 |
| Computer system design and related services | 5,041 | 3,109 | 2,488 | 442 | 1,544 | 42 | 130 | 2,840 | 11,099 | 15,053 | 41,788 |
| Scientific research and development | 588 | 970 | 4,094 | 7,373 | 1,002 | 228 | 329 | 2,943 | 6,145 | 444 | 24,116 |
| Other services | 4,887 | 3,657 | 9,357 | 10,438 | 7,431 | 270 | 1,837 | 2,800 | 2,625 | 104,693 | 148,016 |
| Unspecified industry code | 10,888 | 22,544 | 1,518 | 35,934 | 5,748 | 2,334 | 3,662 | 10,290 | 13,333 | 1,169 | 120,322 |
| **Total all industries** | **31,979** | **42,971** | **182,766** | **67,912** | **99,538** | **10,019** | **6,548** | **23,851** | **58,176** | **160,441** | **697,124** |
| **Percent** | **4.6** | **6.2** | **26.2** | **9.7** | **14.3** | **1.4** | **0.9** | **3.4** | **8.3** | **23.0** | **100.0** |

1. Excluding Montréal (Mtl.) and National Capital Region (NCR).
2. Excluding Toronto (Tor.) and National Capital Region (NCR).
3. Includes region unallocated and Yukon, Northwest Territories and Nunavut.

## Table 15. Concentration of federal R&D payments among selected industries, by region, 1998-1999

| Selected industry | Atlantic Provinces | Que.[1] | Mtl. | Ont.[2] | Tor. | Man. | Sask. | Alta. | B.C. | NCR | Total[3] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | in thousands of dollars | | | | | | | | | | |
| Agriculture, forestry, fishing and hunting | 1,378 | 22 | 8 | 7 | 212 | 100 | 0 | 405 | 36 | 27 | 2,195 |
| Mining and oil and gas extraction | 101 | 320 | 336 | 0 | 42 | 0 | 21 | 512 | 6 | 0 | 1,338 |
| Utilities – Total | 0 | 48 | 63 | 0 | 2,487 | 0 | 79 | 0 | 507 | 0 | 3,184 |
| Construction | 1,078 | 210 | 534 | 427 | 0 | 2 | 0 | 0 | 60 | 6 | 2,317 |
| Machinery | 41 | 767 | 141 | 1,196 | 1,678 | 0 | 0 | 0 | 1,480 | 0 | 5,303 |
| Communications equipment | 635 | 0 | 2,461 | 9,605 | 1,395 | 0 | 0 | 1,863 | 113 | 725 | 16,797 |
| Navigational, measuring, medical and control instruments | 2,651 | 944 | 13,632 | 3,121 | 5,299 | 7,482 | 4,657 | 0 | 1,649 | 2,668 | 42,103 |
| Aerospace products and parts | 1,456 | 0 | 92,532 | 0 | 136,461 | 0 | 0 | 0 | 3,692 | 172 | 234,313 |
| Other manufacturing industries | 2,967 | 4,337 | 7,393 | 5,349 | 7,651 | 59 | 11 | 1,015 | 15,808 | 5,949 | 50,539 |
| Architectural, engineering and related services | 4,058 | 3,717 | 12,075 | 1,484 | 5,413 | 226 | 62 | 3,166 | 2,108 | 6,741 | 39,050 |
| Computer system design and related services | 3,558 | 1,202 | 1,985 | 1,351 | 2,016 | 0 | 0 | 1,659 | 70,887 | 13,564 | 96,222 |
| Scientific research and development | 87 | 1,051 | 2,367 | 3,418 | 3,863 | 217 | 421 | 2,325 | 7,529 | 11,963 | 33,241 |
| Other services | 5,411 | 2,182 | 7,266 | 3,331 | 9,488 | 50 | 180 | 1,670 | 2,550 | 34,196 | 66,324 |
| Unspecified industry code | 9,231 | 16,510 | 2,225 | 22,357 | 7,418 | 2,356 | 2,672 | 7,947 | 10,103 | 1,837 | 151,878 |
| **Total all industries** | **32,652** | **31,310** | **143,018** | **51,646** | **183,423** | **10,492** | **8,103** | **20,562** | **116,528** | **77,848** | **744,804** |
| **Percent** | **4.4** | **4.2** | **19.2** | **6.9** | **24.6** | **1.4** | **1.1** | **2.8** | **15.6** | **10.5** | **100.0** |

1. Excluding Montreal (Mtl.) and National Capital Region (NCR).
2. Excluding Toronto (Tor.) and National Capital Region (NCR).
3. Includes region unallocated and Yukon, Northwest Territories and Nunavut.

## Table 16. Concentration of federal R&D payments among selected industries, by region, 1999-2000

| Selected industry | Atlantic Provinces | Que.[1] | Mtl. | Ont.[2] | Tor. | Man. | Sask. | Alta. | B.C. | NCR | Total[3] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | in thousands of dollars | | | | | | | | | | |
| Agriculture, forestry, fishing and hunting | 2,061 | 297 | 4,321 | 407 | 25 | 104 | 165 | 43 | 1,437 | 105 | 8,974 |
| Mining and oil and gas extraction | 120 | 59 | 0 | 395 | 89 | 0 | 0 | 669 | 18 | 0 | 1,350 |
| Utilities – Total | 395 | 98 | 33 | 120 | 4,514 | 1 | 22 | 39 | 483 | 0 | 5,705 |
| Construction | 181 | 772 | 523 | 2,241 | 375 | 36 | 61 | 298 | 45 | 404 | 4,967 |
| Machinery | 769 | 2,920 | 168 | 1,865 | 4,504 | 57 | 195 | 153 | 1,268 | 24 | 11,923 |
| Communications equipment | 105 | 66 | 4,758 | 5,792 | 1,994 | 0 | 49 | 1,994 | 272 | 5,218 | 20,246 |
| Navigational, measuring, medical and control instruments | 1,800 | 510 | 10,766 | 1,162 | 90,115 | 7,322 | 4,205 | 295 | 88,521 | 2,579 | 207,277 |
| Aerospace products and parts | 9 | 0 | 56,872 | 165 | 8,950 | 11 | 0 | 15 | 818 | 0 | 66,840 |
| Other manufacturing industries | 4,191 | 13,074 | 16,712 | 5,507 | 12,286 | 1,412 | 939 | 3,057 | 30,875 | 17,267 | 105,367 |
| Architectural, engineering and related services | 2,988 | 1,983 | 4,726 | 1,999 | 6,572 | 536 | 133 | 3,774 | 1,711 | 9,793 | 34,257 |
| Computer system design and related services | 4,917 | 3,679 | 2,703 | 1,114 | 3,324 | 666 | 309 | 4,096 | 2,837 | 7,769 | 31,414 |
| Scientific research and development | 1,395 | 1,603 | 3,790 | 2,719 | 4,015 | 437 | 581 | 3,529 | 2,835 | 28,548 | 49,452 |
| Other services | 7,551 | 4,090 | 14,480 | 6,262 | 6,178 | 1,255 | 833 | 5,623 | 9,093 | 17,759 | 73,197 |
| Unspecified industry code | 3,596 | 3,852 | 2,533 | 2,216 | 2,337 | 625 | 675 | 1,025 | 1,601 | 2,335 | 96,126 |
| **Total all industries** | **30,078** | **33,003** | **122,385** | **31,964** | **145,278** | **12,462** | **8,167** | **24,610** | **141,814** | **91,799** | **717,095** |
| **Percent** | **4.2** | **4.6** | **17.1** | **4.5** | **20.3** | **1.7** | **1.1** | **3.4** | **19.8** | **12.8** | **100.0** |

1. Excluding Montreal (Mtl.) and National Capital Region (NCR).
2. Excluding Toronto (Tor.) and National Capital Region (NCR).
3. Includes region unallocated and Yukon, Northwest Territories and Nunavut.

## Table 17. Concentration of federal R&D payments among selected industries, by region, 2000-2001

| Selected industry | Atlantic Provinces | Que.[1] | Mtl. | Ont.[2] | Tor. | Man. | Sask. | Alta. | B.C. | NCR | Total[3] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | in thousands of dollars | | | | | | | | | | |
| Agriculture, forestry, fishing and hunting | 2,034 | 286 | 1,686 | 480 | 36 | 34 | 84 | 309 | 385 | 119 | 5,462 |
| Mining and oil and gas extraction | 92 | 288 | 24 | 540 | 112 | 0 | 10 | 296 | 79 | 0 | 1,441 |
| Utilities – Total | 348 | 66 | 91 | 43 | 3,301 | 0 | 0 | 15 | 137 | 0 | 4,001 |
| Construction | 471 | 150 | 571 | 317 | 323 | 54 | 2 | 185 | 338 | 705 | 3,126 |
| Machinery | 1,023 | 1,633 | 11,228 | 1,662 | 4,641 | 42 | 74 | 102 | 867 | 1,691 | 22,963 |
| Communications equipment | 411 | 54 | 5,807 | 17,492 | 1,664 | 0 | 40 | 1,626 | 3,973 | 7,368 | 38,435 |
| Navigational, measuring, medical and control instruments | 2,744 | 189 | 8,718 | 1,099 | 17,119 | 8,322 | 4,428 | 505 | 7,588 | 1,377 | 52,096 |
| Aerospace products and parts | 33 | 0 | 83,003 | 160 | 9,156 | 5 | 0 | 53 | 6 | 0 | 92,416 |
| Other manufacturing industries | 3,182 | 19,113 | 6,393 | 6,255 | 30,717 | 389 | 482 | 1,980 | 14,403 | 8,544 | 91,516 |
| Architectural, engineering and related services | 4,147 | 1,523 | 7,149 | 2,015 | 34,549 | 126 | 425 | 3,122 | 3,885 | 10,244 | 67,304 |
| Computer system design and related services | 6,879 | 5,783 | 1,643 | 908 | 2,408 | 361 | 316 | 2,302 | 2,076 | 6,255 | 28,933 |
| Scientific research and development | 1,256 | 6,413 | 2,394 | 6,339 | 2,410 | 255 | 380 | 3,456 | 4,378 | 5,163 | 32,444 |
| Other services | 8,520 | 3,695 | 10,259 | 6,329 | 12,956 | 1,092 | 992 | 5,145 | 8,760 | 23,540 | 81,338 |
| Unspecified industry code | 2,808 | 4,599 | 3,621 | 2,800 | 3,714 | 490 | 517 | 1,738 | 2,376 | 2,027 | 99,214 |
| **Total all industries** | **33,948** | **43,792** | **142,587** | **46,439** | **123,106** | **11,170** | **7,750** | **20,834** | **49,251** | **67,033** | **620,689** |
| **Percent** | **5.5** | **7.1** | **23.0** | **7.5** | **19.8** | **1.8** | **1.2** | **3.4** | **7.9** | **10.8** | **100.0** |

1. Excluding Montreal (Mtl.) and National Capital Region (NCR).
2. Excluding Toronto (Tor.) and National Capital Region (NCR).
3. Includes region unallocated and Yukon, Northwest Territories and Nunavut.

## Appendix II

## NAICS description and code

| NAICS description | NAICS 2002 |
|---|---|
| **AGRICULTURE, FORESTRY, FISHING AND HUNTING** | |
| **AGRICULTURE** | |
| Soybean Farming | 111110 |
| Oilseed (except Soybean) Farming | 111120 |
| Dry Pea and Bean Farming | 111130 |
| Wheat Farming | 111140 |
| Corn Farming | 111150 |
| Rice Farming | 111160 |
| Other Grain Farming | 111190 |
| Potato Farming | 111211 |
| Other Vegetable (except Potato) and Melon Farming | 111219 |
| Orange Groves | 111310 |
| Citrus (except Orange) Groves | 111320 |
| Non-Citrus Fruit and Tree Nut Farming | 111330 |
| Mushroom Production | 111411 |
| Other Food Crops Grown Under Cover | 111419 |
| Nursery and Tree Production | 111421 |
| Floriculture Production | 111422 |
| Tobacco Farming | 111910 |
| Cotton Farming | 111920 |
| Sugar-Cane Farming | 111930 |
| Hay Farming | 111940 |
| Fruit and Vegetable Combination Farming | 111993 |
| All Other Miscellaneous Crop Farming | 111999 |
| Beef Cattle Ranching and Farming, including Feedlots | 112110 |
| Dairy Cattle and Milk Production | 112120 |
| Hog and Pig Farming | 112210 |
| Chicken Egg Production | 112310 |
| Broiler and Other Meat-Type Chicken Production | 112320 |
| Turkey Production | 112330 |
| Poultry Hatcheries | 112340 |
| Combination Poultry and Egg Production | 112391 |
| All Other Poultry Production | 112399 |
| Sheep Farming | 112410 |
| Goat Farming | 112420 |
| Apiculture | 112910 |
| Horse and Other Equine Production | 112920 |
| Fur-Bearing Animal and Rabbit Production | 112930 |
| Livestock Combination Farming | 112991 |
| All Other Miscellaneous Animal Production | 112999 |
| Support Activities for Crop Production | 115110 |
| Support Activities for Animal Production | 115210 |
| **FORESTRY AND LOGGING** | |
| Timber Tract Operations | 113110 |
| Forest Nurseries and Gathering of Forest Products | 113210 |
| Logging (except Contract) | 113311 |
| Contract Logging | 113312 |
| Support Activities for Forestry | 115310 |

| NAICS description | NAICS 2002 |
|---|---|
| **FISHING, HUNTING AND TRAPPING** | |
| Animal Aquaculture | 112510 |
| Salt Water Fishing | 114113 |
| Inland Fishing | 114114 |
| Hunting and Trapping | 114210 |
| **MINING AND OIL AND GAS EXTRACTION** | |
| **OIL AND GAS EXTRACTION** | |
| Conventional Oil and Gas Extraction | 211113 |
| Non-Conventional Oil Extraction | 211114 |
| Oil and Gas Contract Drilling | 213111 |
| Services to Oil and Gas Extraction | 213118 |
| **MINING** | |
| Bituminous Coal Mining | 212114 |
| Subbituminous Coal Mining | 212115 |
| Lignite Coal Mining | 212116 |
| Iron Ore Mining | 212210 |
| Gold and Silver Ore Mining | 212220 |
| Lead-Zinc Ore Mining | 212231 |
| Nickel-Copper Ore Mining | 212232 |
| Copper-Zinc Ore Mining | 212233 |
| Uranium Ore Mining | 212291 |
| All Other Metal Ore Mining | 212299 |
| Granite Mining and Quarrying | 212314 |
| Limestone Mining and Quarrying | 212315 |
| Marble Mining and Quarrying | 212316 |
| Sandstone Mining and Quarrying | 212317 |
| Sand and Gravel Mining and Quarrying | 212323 |
| Shale, Clay and Refractory Mineral Mining and Quarrying | 212326 |
| Diamond Mines | 212392 |
| Salt Mines | 212393 |
| Asbestos Mining | 212394 |
| Gypsum Mining | 212395 |
| Potash Mining | 212396 |
| Peat Extraction | 212397 |
| All Other Non-Metallic Mineral Mining and Quarrying | 212398 |
| Contract Drilling (except Oil and Gas) | 213117 |
| Other Support Activities for Mining | 213119 |
| **UTILITIES** | |
| **ELECTRIC POWER** | |
| Hydro-Electric Power Generation | 221111 |
| Fossil-Fuel Electric Power Generation | 221112 |
| Nuclear Electric Power Generation | 221113 |
| Other Electric Power Generation | 221119 |
| Electric Bulk Power Transmission and Control | 221121 |
| Electric Power Distribution | 221122 |

| NAICS description | NAICS 2002 |
|---|---|
| **OTHER UTILITIES** | |
| Natural Gas Distribution | 221210 |
| Water Supply and Irrigation Systems | 221310 |
| Sewage Treatment Facilities | 221320 |
| Steam and Air-Conditioning Supply | 221330 |
| Waste Collection | 562110 |
| Waste Treatment and Disposal | 562210 |
| Remediation Services | 562910 |
| Material Recovery Facilities | 562920 |
| All Other Waste Management Services | 562990 |
| **CONSTRUCTION** | |
| Residential Building Construction | 236110 |
| Industrial Building and Structure Construction | 236210 |
| Commercial and Institutional Building Construction | 236220 |
| Water and Sewer Line and Related Structures Construction | 237110 |
| Oil and Gas Pipeline and Related Structures Construction | 237120 |
| Power and Communication Line and Related Structures Construction | 237130 |
| Land Subdivision | 237210 |
| Highway, Street and Bridge Construction | 237310 |
| Other Heavy and Civil Engineering Construction | 237990 |
| Poured Concrete Foundation and Structure Contractors | 238110 |
| Structural Steel and Precast Concrete Contractors | 238120 |
| Framing Contractors | 238130 |
| Masonry Contractors | 238140 |
| Glass and Glazing Contractors | 238150 |
| Roofing Contractors | 238160 |
| Siding Contractors | 238170 |
| Other Foundation, Structure and Building Exterior Contractors | 238190 |
| Electrical Contractors | 238210 |
| Plumbing, Heating and Air-Conditioning Contractors | 238220 |
| Elevator and Escalator Installation Contractors | 238291 |
| All Other Building Equipment Contractors | 238299 |
| Drywall and Insulation Contractors | 238310 |
| Painting and Wall Covering Contractors | 238320 |
| Flooring Contractors | 238330 |
| Tile and Terrazzo Contractors | 238340 |
| Finish Carpentry Contractors | 238350 |
| Other Building Finishing Contractors | 238390 |
| Site Preparation Contractors | 238910 |
| All Other Specialty Trade Contractors | 238990 |
| **MANUFACTURING** | |
| **FOOD** | |
| Dog and Cat Food Manufacturing | 311111 |
| Other Animal Food Manufacturing | 311119 |
| Flour Milling | 311211 |
| Rice Milling and Malt Manufacturing | 311214 |
| Wet Corn Milling | 311221 |
| Oilseed Processing | 311224 |
| Fat and Oil Refining and Blending | 311225 |
| Breakfast Cereal Manufacturing | 311230 |

| NAICS description | NAICS 2002 |
|---|---|
| Sugar Manufacturing | 311310 |
| Chocolate and Confectionery Manufacturing from Cacao Beans | 311320 |
| Confectionery Manufacturing from Purchased Chocolate | 311330 |
| Non-Chocolate Confectionery Manufacturing | 311340 |
| Frozen Food Manufacturing | 311410 |
| Fruit and Vegetable Canning, Pickling and Drying | 311420 |
| Fluid Milk Manufacturing | 311511 |
| Butter, Cheese, and Dry and Condensed Dairy Products Manufacturing | 311515 |
| Ice Cream and Frozen Dessert Manufacturing | 311520 |
| Animal (except Poultry) Slaughtering | 311611 |
| Rendering and Meat Processing from Carcasses | 311614 |
| Poultry Processing | 311615 |
| Seafood Product Preparation and Packaging | 311710 |
| Retail Bakeries | 311811 |
| Commercial Bakeries and Frozen Bakery Product Manufacturing | 311814 |
| Cookie and Cracker Manufacturing | 311821 |
| Flour Mixes and Dough Manufacturing from Purchased Flour | 311822 |
| Dry Pasta Manufacturing | 311823 |
| Tortilla Manufacturing | 311830 |
| Roasted Nut and Peanut Butter Manufacturing | 311911 |
| Other Snack Food Manufacturing | 311919 |
| Coffee and Tea Manufacturing | 311920 |
| Flavouring Syrup and Concentrate Manufacturing | 311930 |
| Seasoning and Dressing Manufacturing | 311940 |
| All Other Food Manufacturing | 311990 |
| **BEVERAGES AND TOBACCO** | |
| Soft Drink and Ice Manufacturing | 312110 |
| Breweries | 312120 |
| Wineries | 312130 |
| Distilleries | 312140 |
| Tobacco Stemming and Redrying | 312210 |
| Tobacco Product Manufacturing | 312220 |
| **TEXTILE** | |
| Fibre, Yarn and Thread Mills | 313110 |
| Broad-Woven Fabric Mills | 313210 |
| Narrow Fabric Mills and Schiffli Machine Embroidery | 313220 |
| Nonwoven Fabric Mills | 313230 |
| Knit Fabric Mills | 313240 |
| Textile and Fabric Finishing | 313310 |
| Fabric Coating | 313320 |
| Carpet and Rug Mills | 314110 |
| Curtain and Linen Mills | 314120 |
| Textile Bag and Canvas Mills | 314910 |
| All Other Textile Product Mills | 314990 |
| **WOOD PRODUCTS** | |
| Sawmills (except Shingle and Shake Mills) | 321111 |
| Shingle and Shake Mills | 321112 |
| Wood Preservation | 321114 |
| Hardwood Veneer and Plywood Mills | 321211 |
| Softwood Veneer and Plywood Mills | 321212 |

| NAICS description | NAICS 2002 |
|---|---|
| Structural Wood Product Manufacturing | 321215 |
| Particle Board and Fibreboard Mills | 321216 |
| Waferboard Mills | 321217 |
| Wood Window and Door Manufacturing | 321911 |
| Other Millwork | 321919 |
| Wood Container and Pallet Manufacturing | 321920 |
| Manufactured (Mobile) Home Manufacturing | 321991 |
| Prefabricated Wood Building Manufacturing | 321992 |
| All Other Miscellaneous Wood Product Manufacturing | 321999 |
| **PAPER** | |
| Mechanical Pulp Mills | 322111 |
| Chemical Pulp Mills | 322112 |
| Paper (except Newsprint) Mills | 322121 |
| Newsprint Mills | 322122 |
| Paperboard Mills | 322130 |
| Corrugated and Solid Fibre Box Manufacturing | 322211 |
| Folding Paperboard Box Manufacturing | 322212 |
| Other Paperboard Container Manufacturing | 322219 |
| Paper Bag and Coated and Treated Paper Manufacturing | 322220 |
| Stationery Product Manufacturing | 322230 |
| Sanitary Paper Product Manufacturing | 322291 |
| All Other Converted Paper Product Manufacturing | 322299 |
| **PRINTING** | |
| Commercial Screen Printing | 323113 |
| Quick Printing | 323114 |
| Digital Printing | 323115 |
| Manifold Business Forms Printing | 323116 |
| Other Printing | 323119 |
| Support Activities for Printing | 323120 |
| **PETROLEUM AND COAL PRODUCTS** | |
| Petroleum Refineries | 324110 |
| Asphalt Paving Mixture and Block Manufacturing | 324121 |
| Asphalt Shingle and Coating Material Manufacturing | 324122 |
| Other Petroleum and Coal Products Manufacturing | 324190 |
| **PHARMACEUTICAL AND MEDICINE** | |
| Pharmaceutical and Medicine Manufacturing | 325410 |
| **OTHER CHEMICAL** | |
| Petrochemical Manufacturing | 325110 |
| Industrial Gas Manufacturing | 325120 |
| Synthetic Dye and Pigment Manufacturing | 325130 |
| Alkali and Chlorine Manufacturing | 325181 |
| All Other Basic Inorganic Chemical Manufacturing | 325189 |
| Other Basic Organic Chemical Manufacturing | 325190 |
| Resin and Synthetic Rubber Manufacturing | 325210 |
| Artificial and Synthetic Fibres and Filaments Manufacturing | 325220 |
| Chemical Fertilizer (except Potash) Manufacturing | 325313 |

| NAICS description | NAICS 2002 |
|---|---|
| Mixed Fertilizer Manufacturing | 325314 |
| Pesticide and Other Agricultural Chemical Manufacturing | 325320 |
| Paint and Coating Manufacturing | 325510 |
| Adhesive Manufacturing | 325520 |
| Soap and Cleaning Compound Manufacturing | 325610 |
| Toilet Preparation Manufacturing | 325620 |
| Printing Ink Manufacturing | 325910 |
| Explosives Manufacturing | 325920 |
| Custom Compounding of Purchased Resins | 325991 |
| All Other Miscellaneous Chemical Product Manufacturing | 325999 |
| **PLASTIC PRODUCT** | |
| Unsupported Plastic Bag Manufacturing | 326111 |
| Unsupported Plastic Film and Sheet Manufacturing | 326114 |
| Unsupported Plastic Profile Shape Manufacturing | 326121 |
| Plastic Pipe and Pipe Fitting Manufacturing | 326122 |
| Laminated Plastic Plate, Sheet and Shape Manufacturing | 326130 |
| Polystyrene Foam Product Manufacturing | 326140 |
| Urethane and Other Foam Product (except Polystyrene) Manufacturing | 326150 |
| Plastic Bottle Manufacturing | 326160 |
| Plastic Plumbing Fixture Manufacturing | 326191 |
| Motor Vehicle Plastic Parts Manufacturing | 326193 |
| All Other Plastic Product Manufacturing | 326198 |
| **RUBBER PRODUCT** | |
| Tire Manufacturing | 326210 |
| Rubber and Plastic Hose and Belting Manufacturing | 326220 |
| Other Rubber Product Manufacturing | 326290 |
| **NON-METALLIC MINERAL PRODUCT** | |
| Pottery, Ceramics and Plumbing Fixture Manufacturing | 327110 |
| Clay Building Material and Refractory Manufacturing | 327120 |
| Glass Manufacturing | 327214 |
| Glass Product Manufacturing from Purchased Glass | 327215 |
| Cement Manufacturing | 327310 |
| Ready-Mix Concrete Manufacturing | 327320 |
| Concrete Pipe, Brick and Block Manufacturing | 327330 |
| Other Concrete Product Manufacturing | 327390 |
| Lime Manufacturing | 327410 |
| Gypsum Product Manufacturing | 327420 |
| Abrasive Product Manufacturing | 327910 |
| All Other Non-Metallic Mineral Product Manufacturing | 327990 |
| **PRIMARY METAL (FERROUS)** | |
| Iron and Steel Mills and Ferro-Alloy Manufacturing | 331110 |
| Iron and Steel Pipes and Tubes Manufacturing from Purchased Steel | 331210 |
| Cold-Rolled Steel Shape Manufacturing | 331221 |
| Steel Wire Drawing | 331222 |
| Iron Foundries | 331511 |
| Steel Foundries | 331514 |

| NAICS description | NAICS 2002 |
|---|---|
| **PRIMARY METAL (NON-FERROUS)** | |
| Primary Production of Alumina and Aluminum | 331313 |
| Aluminum Rolling, Drawing, Extruding and Alloying | 331317 |
| Non-Ferrous Metal (except Aluminum) Smelting and Refining | 331410 |
| Copper Rolling, Drawing, Extruding and Alloying | 331420 |
| Non-Ferrous Metal (except Copper and Aluminum) Rolling, Drawing, Extruding and Alloying | 331490 |
| Non-Ferrous Die-Casting Foundries | 331523 |
| Non-Ferrous Foundries (except Die-Casting) | 331529 |
| **FABRICATED METAL PRODUCT** | |
| Forging | 332113 |
| Stamping | 332118 |
| Cutlery and Hand Tool Manufacturing | 332210 |
| Prefabricated Metal Building and Component Manufacturing | 332311 |
| Concrete Reinforcing Bar Manufacturing | 332314 |
| Other Plate Work and Fabricated Structural Product Manufacturing | 332319 |
| Metal Window and Door Manufacturing | 332321 |
| Other Ornamental and Architectural Metal Products Manufacturing | 332329 |
| Power Boiler and Heat Exchanger Manufacturing | 332410 |
| Metal Tank (Heavy Gauge) Manufacturing | 332420 |
| Metal Can Manufacturing | 332431 |
| Other Metal Container Manufacturing | 332439 |
| Hardware Manufacturing | 332510 |
| Spring (Heavy Gauge) Manufacturing | 332611 |
| Other Fabricated Wire Product Manufacturing | 332619 |
| Machine Shops | 332710 |
| Turned Product and Screw, Nut and Bolt Manufacturing | 332720 |
| Coating, Engraving, Heat Treating and Allied Activities | 332810 |
| Metal Valve Manufacturing | 332910 |
| Ball and Roller Bearing Manufacturing | 332991 |
| All Other Miscellaneous Fabricated Metal Product Manufacturing | 332999 |
| **MACHINERY** | |
| Agricultural Implement Manufacturing | 333110 |
| Construction Machinery Manufacturing | 333120 |
| Mining and Oil and Gas Field Machinery Manufacturing | 333130 |
| Sawmill and Woodworking Machinery Manufacturing | 333210 |
| Rubber and Plastics Industry Machinery Manufacturing | 333220 |
| Paper Industry Machinery Manufacturing | 333291 |
| All Other Industrial Machinery Manufacturing | 333299 |
| Commercial and Service Industry Machinery Manufacturing | 333310 |
| Industrial and Commercial Fan and Blower and Air Purification Equipment Manufacturing | 333413 |
| Heating Equipment and Commercial Refrigeration Equipment Manufacturing | 333416 |
| Industrial Mould Manufacturing | 333511 |
| Other Metalworking Machinery Manufacturing | 333519 |
| Turbine and Turbine Generator Set Unit Manufacturing | 333611 |
| Other Engine and Power Transmission Equipment Manufacturing | 333619 |
| Pump and Compressor Manufacturing | 333910 |
| Material Handling Equipment Manufacturing | 333920 |
| All Other General-Purpose Machinery Manufacturing | 333990 |

| NAICS description | NAICS 2002 |
|---|---|
| **COMPUTER AND PERIPHERAL EQUIPMENT** | |
| Computer and Peripheral Equipment Manufacturing | 334110 |
| **COMMUNICATIONS EQUIPMENT** | |
| Telephone Apparatus Manufacturing | 334210 |
| Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing | 334220 |
| Other Communications Equipment Manufacturing | 334290 |
| **SEMICONDUCTOR AND OTHER ELECTRONIC COMPONENT** | |
| Semiconductor and Other Electronic Component Manufacturing | 334410 |
| **NAVIGATIONAL, MEASURING, MEDICAL AND CONTROL INSTRUMENTS** | |
| Navigational and Guidance Instruments Manufacturing | 334511 |
| Measuring, Medical and Controlling Devices Manufacturing | 334512 |
| **OTHER COMPUTER AND ELECTRONIC PRODUCT** | |
| Audio and Video Equipment Manufacturing | 334310 |
| Manufacturing and Reproducing Magnetic and Optical Media | 334610 |
| **ELECTRICAL EQUIPMENT, APPLIANCE AND COMPONENT** | |
| Electric Lamp Bulb and Parts Manufacturing | 335110 |
| Lighting Fixture Manufacturing | 335120 |
| Small Electrical Appliance Manufacturing | 335210 |
| Major Kitchen Appliance Manufacturing | 335223 |
| Other Major Appliance Manufacturing | 335229 |
| Power, Distribution and Specialty Transformers Manufacturing | 335311 |
| Motor and Generator Manufacturing | 335312 |
| Switchgear and Switchboard, and Relay and Industrial Control Apparatus Manufacturing | 335315 |
| Battery Manufacturing | 335910 |
| Communication and Energy Wire and Cable Manufacturing | 335920 |
| Wiring Device Manufacturing | 335930 |
| All Other Electrical Equipment and Component Manufacturing | 335990 |
| **MOTOR VEHICLE AND PARTS** | |
| Automobile and Light-Duty Motor Vehicle Manufacturing | 336110 |
| Heavy-Duty Truck Manufacturing | 336120 |
| Motor Vehicle Body Manufacturing | 336211 |
| Truck Trailer Manufacturing | 336212 |
| Motor Home, Travel Trailer and Camper Manufacturing | 336215 |
| Motor Vehicle Gasoline Engine and Engine Parts Manufacturing | 336310 |
| Motor Vehicle Electrical and Electronic Equipment Manufacturing | 336320 |
| Motor Vehicle Steering and Suspension Components (except Spring) Manufacturing | 336330 |
| Motor Vehicle Brake System Manufacturing | 336340 |
| Motor Vehicle Transmission and Power Train Parts Manufacturing | 336350 |
| Motor Vehicle Seating and Interior Trim Manufacturing | 336360 |
| Motor Vehicle Metal Stamping | 336370 |
| Other Motor Vehicle Parts Manufacturing | 336390 |

| NAICS description | NAICS 2002 |
|---|---|
| **AEROSPACE PRODUCT AND PARTS** | |
| Aerospace Product and Parts Manufacturing | 336410 |
| **ALL OTHER TRANSPORTATION EQUIPMENT** | |
| Railroad Rolling Stock Manufacturing | 336510 |
| Ship Building and Repairing | 336611 |
| Boat Building | 336612 |
| Other Transportation Equipment Manufacturing | 336990 |
| **FURNITURE AND RELATED PRODUCT** | |
| Wood Kitchen Cabinet and Counter Top Manufacturing | 337110 |
| Upholstered Household Furniture Manufacturing | 337121 |
| Other Wood Household Furniture Manufacturing | 337123 |
| Household Furniture (except Wood and Upholstered) Manufacturing | 337126 |
| Institutional Furniture Manufacturing | 337127 |
| Wood Office Furniture, including Custom Architectural Woodwork, Manufacturing | 337213 |
| Office Furniture (except Wood) Manufacturing | 337214 |
| Showcase, Partition, Shelving and Locker Manufacturing | 337215 |
| Mattress Manufacturing | 337910 |
| Blind and Shade Manufacturing | 337920 |
| **OTHER MANUFACTURING INDUSTRIES** | |
| Hosiery and Sock Mills | 315110 |
| Other Clothing Knitting Mills | 315190 |
| Cut and Sew Clothing Contracting | 315210 |
| Men's and Boys' Cut and Sew Underwear and Nightwear Manufacturing | 315221 |
| Men's and Boys' Cut and Sew Suit, Coat and Overcoat Manufacturing | 315222 |
| Men's and Boys' Cut and Sew Shirt Manufacturing | 315226 |
| Men's and Boys' Cut and Sew Trouser, Slack and Jean Manufacturing | 315227 |
| Other Men's and Boys' Cut and Sew Clothing Manufacturing | 315229 |
| Women's and Girls' Cut and Sew Lingerie, Loungewear and Nightwear Manufacturing | 315231 |
| Women's and Girls' Cut and Sew Blouse and Shirt Manufacturing | 315232 |
| Women's and Girls' Cut and Sew Dress Manufacturing | 315233 |
| Women's and Girls' Cut and Sew Suit, Coat, Tailored Jacket and Skirt Manufacturing | 315234 |
| Other Women's and Girls' Cut and Sew Clothing Manufacturing | 315239 |
| Infants' Cut and Sew Clothing Manufacturing | 315291 |
| Fur and Leather Clothing Manufacturing | 315292 |
| All Other Cut and Sew Clothing Manufacturing | 315299 |
| Clothing Accessories and Other Clothing Manufacturing | 315990 |
| Leather and Hide Tanning and Finishing | 316110 |
| Footwear Manufacturing | 316210 |
| Other Leather and Allied Product Manufacturing | 316990 |
| Medical Equipment and Supplies Manufacturing | 339110 |
| Jewellery and Silverware Manufacturing | 339910 |
| Sporting and Athletic Goods Manufacturing | 339920 |
| Doll, Toy and Game Manufacturing | 339930 |
| Office Supplies (except Paper) Manufacturing | 339940 |
| Sign Manufacturing | 339950 |
| All Other Miscellaneous Manufacturing | 339990 |

| NAICS description | NAICS 2002 |
|---|---|
| **SERVICES** | |
| **WHOLESALE TRADE** | |
| Live Animal Wholesaler-Distributors | 411110 |
| Oilseed and Grain Wholesaler-Distributors | 411120 |
| Nursery Stock and Plant Wholesaler-Distributors | 411130 |
| Other Farm Product Wholesaler-Distributors | 411190 |
| Petroleum Product Wholesaler-Distributors | 412110 |
| General-Line Food Wholesaler-Distributors | 413110 |
| Dairy and Milk Products Wholesaler-Distributors | 413120 |
| Poultry and Egg Wholesaler-Distributors | 413130 |
| Fish and Seafood Product Wholesaler-Distributors | 413140 |
| Fresh Fruit and Vegetable Wholesaler-Distributors | 413150 |
| Red Meat and Meat Product Wholesaler-Distributors | 413160 |
| Other Specialty-Line Food Wholesaler-Distributors | 413190 |
| Non-Alcoholic Beverage Wholesaler-Distributors | 413210 |
| Alcoholic Beverage Wholesaler-Distributors | 413220 |
| Cigarette and Tobacco Product Wholesaler-Distributors | 413310 |
| Clothing and Clothing Accessories Wholesaler-Distributors | 414110 |
| Footwear Wholesaler-Distributors | 414120 |
| Piece Goods, Notions and Other Dry Goods Wholesaler-Distributors | 414130 |
| Home Entertainment Equipment Wholesaler-Distributors | 414210 |
| Household Appliance Wholesaler-Distributors | 414220 |
| China, Glassware, Crockery and Pottery Wholesaler-Distributors | 414310 |
| Floor Covering Wholesaler-Distributors | 414320 |
| Linen, Drapery and Other Textile Furnishings Wholesaler-Distributors | 414330 |
| Other Home Furnishings Wholesaler-Distributors | 414390 |
| Jewellery and Watch Wholesaler-Distributors | 414410 |
| Book, Periodical and Newspaper Wholesaler-Distributors | 414420 |
| Photographic Equipment and Supplies Wholesaler-Distributors | 414430 |
| Sound Recording Wholesalers | 414440 |
| Video Cassette Wholesalers | 414450 |
| Toy and Hobby Goods Wholesaler-Distributors | 414460 |
| Amusement and Sporting Goods Wholesaler-Distributors | 414470 |
| Pharmaceuticals and Pharmacy Supplies Wholesaler-Distributors | 414510 |
| Toiletries, Cosmetics and Sundries Wholesaler-Distributors | 414520 |
| New and Used Automobile and Light-Duty Truck Wholesaler-Distributors | 415110 |
| Truck, Truck Tractor and Bus Wholesaler-Distributors | 415120 |
| Recreational and Other Motor Vehicles Wholesaler-Distributors | 415190 |
| Tire Wholesaler-Distributors | 415210 |
| Other New Motor Vehicle Parts and Accessories Wholesaler-Distributors | 415290 |
| Used Motor Vehicle Parts and Accessories Wholesaler-Distributors | 415310 |
| Electrical Wiring and Construction Supplies Wholesaler-Distributors | 416110 |
| Plumbing, Heating and Air-Conditioning Equipment and Supplies Wholesaler-Distributors | 416120 |
| Metal Service Centres | 416210 |
| General-Line Building Supplies Wholesaler-Distributors | 416310 |
| Lumber, Plywood and Millwork Wholesaler-Distributors | 416320 |
| Hardware Wholesaler-Distributors | 416330 |
| Paint, Glass and Wallpaper Wholesaler-Distributors | 416340 |
| Other Specialty-Line Building Supplies Wholesaler-Distributors | 416390 |
| Farm, Lawn and Garden Machinery and Equipment Wholesaler-Distributors | 417110 |
| Construction and Forestry Machinery, Equipment and Supplies Wholesaler-Distributors | 417210 |
| Mining and Oil and Gas Well Machinery, Equipment and Supplies Wholesaler-Distributors | 417220 |
| Industrial Machinery, Equipment and Supplies Wholesaler-Distributors | 417230 |
| Computer, Computer Peripheral and Pre-Packaged Software Wholesaler-Distributors | 417310 |

| NAICS description | NAICS 2002 |
|---|---|
| Electronic Components, Navigational and Communications Equipment and Supplies Wholesaler-Distributors | 417320 |
| Office and Store Machinery and Equipment Wholesaler-Distributors | 417910 |
| Service Establishment Machinery, Equipment and Supplies Wholesaler-Distributors | 417920 |
| Professional Machinery, Equipment and Supplies Wholesaler-Distributors | 417930 |
| All Other Machinery, Equipment and Supplies Wholesaler-Distributors | 417990 |
| Recyclable Metal Wholesaler-Distributors | 418110 |
| Recyclable Paper and Paperboard Wholesaler-Distributors | 418120 |
| Other Recyclable Material Wholesaler-Distributors | 418190 |
| Stationery and Office Supplies Wholesaler-Distributors | 418210 |
| Other Paper and Disposable Plastic Product Wholesaler-Distributors | 418220 |
| Agricultural Feed Wholesaler-Distributors | 418310 |
| Seed Wholesaler-Distributors | 418320 |
| Agricultural Chemical and Other Farm Supplies Wholesaler-Distributors | 418390 |
| Chemical (except Agricultural) and Allied Product Wholesaler-Distributors | 418410 |
| Log and Wood Chip Wholesaler-Distributors | 418910 |
| Mineral, Ore and Precious Metal Wholesaler-Distributors | 418920 |
| Second-Hand Goods (except Machinery and Automotive) Wholesaler-Distributors | 418930 |
| All Other Wholesaler-Distributors | 418990 |
| Farm Product Agents and Brokers | 419110 |
| Petroleum Product Agents and Brokers | 419120 |
| Food, Beverage and Tobacco Agents and Brokers | 419130 |
| Personal and Household Goods Agents and Brokers | 419140 |
| Motor Vehicle and Parts Agents and Brokers | 419150 |
| Building Material and Supplies Agents and Brokers | 419160 |
| Machinery, Equipment and Supplies Agents and Brokers | 419170 |
| Other Wholesale Agents and Brokers | 419190 |
| **RETAIL TRADE** | |
| New Car Dealers | 441110 |
| Used Car Dealers | 441120 |
| Recreational Vehicle Dealers | 441210 |
| Motorcycle, Boat and Other Motor Vehicle Dealers | 441220 |
| Automotive Parts and Accessories Stores | 441310 |
| Tire Dealers | 441320 |
| Furniture Stores | 442110 |
| Floor Covering Stores | 442210 |
| Window Treatment Stores | 442291 |
| Print and Picture Frame Stores | 442292 |
| All Other Home Furnishings Stores | 442298 |
| Appliance, Television and Other Electronics Stores | 443110 |
| Computer and Software Stores | 443120 |
| Camera and Photographic Supplies Stores | 443130 |
| Home Centres | 444110 |
| Paint and Wallpaper Stores | 444120 |
| Hardware Stores | 444130 |
| Other Building Material Dealers | 444190 |
| Outdoor Power Equipment Stores | 444210 |
| Nursery and Garden Centres | 444220 |
| Supermarkets and Other Grocery (except Convenience) Stores | 445110 |
| Convenience Stores | 445120 |
| Meat Markets | 445210 |
| Fish and Seafood Markets | 445220 |
| Fruit and Vegetable Markets | 445230 |
| Baked Goods Stores | 445291 |
| Confectionery and Nut Stores | 445292 |

| NAICS description | NAICS 2002 |
|---|---|
| All Other Specialty Food Stores | 445299 |
| Beer, Wine and Liquor Stores | 445310 |
| Pharmacies and Drug Stores | 446110 |
| Cosmetics, Beauty Supplies and Perfume Stores | 446120 |
| Optical Goods Stores | 446130 |
| Food (Health) Supplement Stores | 446191 |
| All Other Health and Personal Care Stores | 446199 |
| Gasoline Stations with Convenience Stores | 447110 |
| Other Gasoline Stations | 447190 |
| Men's Clothing Stores | 448110 |
| Women's Clothing Stores | 448120 |
| Children's and Infants' Clothing Stores | 448130 |
| Family Clothing Stores | 448140 |
| Clothing Accessories Stores | 448150 |
| Fur Stores | 448191 |
| All Other Clothing Stores | 448199 |
| Shoe Stores | 448210 |
| Jewellery Stores | 448310 |
| Luggage and Leather Goods Stores | 448320 |
| Sporting Goods Stores | 451110 |
| Hobby, Toy and Game Stores | 451120 |
| Sewing, Needlework and Piece Goods Stores | 451130 |
| Musical Instrument and Supplies Stores | 451140 |
| Book Stores and News Dealers | 451210 |
| Pre-Recorded Tape, Compact Disc and Record Stores | 451220 |
| Department Stores | 452110 |
| Warehouse Clubs and Superstores | 452910 |
| Home and Auto Supplies Stores | 452991 |
| All Other Miscellaneous General Merchandise Stores | 452999 |
| Florists | 453110 |
| Office Supplies and Stationery Stores | 453210 |
| Gift, Novelty and Souvenir Stores | 453220 |
| Used Merchandise Stores | 453310 |
| Pet and Pet Supplies Stores | 453910 |
| Art Dealers | 453920 |
| Manufactured (Mobile) Home Dealers | 453930 |
| Beer and Wine-Making Supplies Stores | 453992 |
| All Other Miscellaneous Store Retailers (except Beer and Wine-Making Supplies Stores) | 453999 |
| Electronic Shopping and Mail-Order Houses | 454110 |
| Vending Machine Operators | 454210 |
| Fuel Dealers | 454310 |
| Other Direct Selling Establishments | 454390 |
| **TRANSPORTATION AND WAREHOUSING** | |
| Scheduled Air Transportation | 481110 |
| Non-Scheduled Chartered Air Transportation | 481214 |
| Non-Scheduled Specialty Flying Services | 481215 |
| Short-Haul Freight Rail Transportation | 482112 |
| Mainline Freight Rail Transportation | 482113 |
| Passenger Rail Transportation | 482114 |
| Deep Sea, Coastal and Great Lakes Water Transportation (except by Ferries) | 483115 |
| Deep Sea, Coastal and Great Lakes Water Transportation by Ferries | 483116 |
| Inland Water Transportation (except by Ferries) | 483213 |
| Inland Water Transportation by Ferries | 483214 |
| General Freight Trucking, Local | 484110 |

| NAICS description | NAICS 2002 |
|---|---|
| General Freight Trucking, Long Distance, Truck-Load | 484121 |
| General Freight Trucking, Long Distance, Less Than Truck-Load | 484122 |
| Used Household and Office Goods Moving | 484210 |
| Bulk Liquids Trucking, Local | 484221 |
| Dry Bulk Materials Trucking, Local | 484222 |
| Forest Products Trucking, Local | 484223 |
| Other Specialized Freight (except Used Goods) Trucking, Local | 484229 |
| Bulk Liquids Trucking, Long Distance | 484231 |
| Dry Bulk Materials Trucking, Long Distance | 484232 |
| Forest Products Trucking, Long Distance | 484233 |
| Other Specialized Freight (except Used Goods) Trucking, Long Distance | 484239 |
| Urban Transit Systems | 485110 |
| Interurban and Rural Bus Transportation | 485210 |
| Taxi Service | 485310 |
| Limousine Service | 485320 |
| School and Employee Bus Transportation | 485410 |
| Charter Bus Industry | 485510 |
| Other Transit and Ground Passenger Transportation | 485990 |
| Pipeline Transportation of Crude Oil | 486110 |
| Pipeline Transportation of Natural Gas | 486210 |
| Pipeline Transportation of Refined Petroleum Products | 486910 |
| All Other Pipeline Transportation | 486990 |
| Scenic and Sightseeing Transportation, Land | 487110 |
| Scenic and Sightseeing Transportation, Water | 487210 |
| Scenic and Sightseeing Transportation, Other | 487990 |
| Air Traffic Control | 488111 |
| Other Airport Operations | 488119 |
| Other Support Activities for Air Transportation | 488190 |
| Support Activities for Rail Transportation | 488210 |
| Port and Harbour Operations | 488310 |
| Marine Cargo Handling | 488320 |
| Marine Salvage Services | 488331 |
| Ship Piloting Services | 488332 |
| Other Navigational Services to Shipping | 488339 |
| Other Support Activities for Water Transportation | 488390 |
| Motor Vehicle Towing | 488410 |
| Other Support Activities for Road Transportation | 488490 |
| Marine Shipping Agencies | 488511 |
| Other Freight Transportation Arrangement | 488519 |
| Other Support Activities for Transportation | 488990 |
| Postal Service | 491110 |
| Couriers | 492110 |
| Local Messengers and Local Delivery | 492210 |
| General Warehousing and Storage | 493110 |
| Refrigerated Warehousing and Storage | 493120 |
| Farm Product Warehousing and Storage | 493130 |
| Other Warehousing and Storage | 493190 |
| **INFORMATION AND CULTURAL INDUSTRIES** | |
| Newspaper Publishers | 511110 |
| Periodical Publishers | 511120 |
| Book Publishers | 511130 |
| Database and Directory Publishers | 511140 |
| Other Publishers | 511190 |
| Software Publishers | 511210 |

| NAICS description | NAICS 2002 |
|---|---|
| Motion Picture and Video Production | 512110 |
| Motion Picture and Video Distribution | 512120 |
| Motion Picture and Video Exhibition | 512130 |
| Post-Production and Other Motion Picture and Video Industries | 512190 |
| Record Production | 512210 |
| Integrated Record Production/Distribution | 512220 |
| Music Publishers | 512230 |
| Sound Recording Studios | 512240 |
| Other Sound Recording Industries | 512290 |
| Radio Broadcasting | 515110 |
| Television Broadcasting | 515120 |
| Pay and Specialty Television | 515210 |
| Internet Publishing and Broadcasting | 516110 |
| Wired Telecommunications Carriers | 517110 |
| Wireless Telecommunications Carriers (except Satellite) | 517210 |
| Telecommunications Resellers | 517310 |
| Satellite Telecommunications | 517410 |
| Cable and Other Program Distribution | 517510 |
| Other Telecommunications | 517910 |
| Internet Service Providers | 518111 |
| Web Search Portals | 518112 |
| Data Processing, Hosting, and Related Services | 518210 |
| News Syndicates | 519110 |
| Libraries | 519121 |
| Archives | 519122 |
| All Other Information Services | 519190 |
| **FINANCE, INSURANCE AND REAL ESTATE** | |
| Monetary Authorities - Central Bank | 521110 |
| Personal and Commercial Banking Industry | 522111 |
| Corporate and Institutional Banking Industry | 522112 |
| Local Credit Unions | 522130 |
| Other Depository Credit Intermediation | 522190 |
| Credit Card Issuing | 522210 |
| Sales Financing | 522220 |
| Consumer Lending | 522291 |
| All Other Non-Depository Credit Intermediation | 522299 |
| Mortgage and Non-mortgage Loan Brokers | 522310 |
| Central Credit Unions | 522321 |
| Other Financial Transactions Processing and Clearing House Activities | 522329 |
| Other Activities Related to Credit Intermediation | 522390 |
| Investment Banking and Securities Dealing | 523110 |
| Securities Brokerage | 523120 |
| Commodity Contracts Dealing | 523130 |
| Commodity Contracts Brokerage | 523140 |
| Securities and Commodity Exchanges | 523210 |
| Miscellaneous Intermediation | 523910 |
| Portfolio Management | 523920 |
| Investment Advice | 523930 |
| All Other Financial Investment Activities | 523990 |
| Direct Individual Life, Health and Medical Insurance Carriers | 524111 |
| Direct Group Life, Health and Medical Insurance Carriers | 524112 |
| Direct General Property and Casualty Insurance Carriers | 524121 |
| Direct, Private, Automobile Insurance Carriers | 524122 |
| Direct, Public, Automobile Insurance Carriers | 524123 |
| Direct Property Insurance Carriers | 524124 |

| NAICS description | NAICS 2002 |
|---|---|
| Direct Liability Insurance Carriers | 524125 |
| Other Direct Insurance (except Life, Health and Medical) Carriers | 524129 |
| Life Reinsurance Carriers | 524131 |
| Accident and Sickness Reinsurance Carriers | 524132 |
| Automobile Reinsurance Carriers | 524133 |
| Property Reinsurance Carriers | 524134 |
| Liability Reinsurance Carriers | 524135 |
| General and Other Reinsurance Carriers | 524139 |
| Insurance Agencies and Brokerages | 524210 |
| Claims Adjusters | 524291 |
| All Other Insurance Related Activities | 524299 |
| Trusteed Pension Funds | 526111 |
| Non-Trusteed Pension Funds | 526112 |
| Equity Funds - Canadian | 526911 |
| Equity Funds - Foreign | 526912 |
| Mortgage Funds | 526913 |
| Money Market Funds | 526914 |
| Bond and Income / Dividend Funds - Canadian | 526915 |
| Bond and Income / Dividend Funds - Foreign | 526916 |
| Balanced Funds / Asset Allocation Funds | 526917 |
| Other Open-Ended Funds | 526919 |
| Mortgage Investment Funds | 526920 |
| Segregated (except Pension) Funds | 526930 |
| Securitization Vehicles | 526981 |
| All Other Miscellaneous Funds and Financial Vehicles | 526989 |
| Lessors of Residential Buildings and Dwellings (except Social Housing Projects) | 531111 |
| Lessors of Social Housing Projects | 531112 |
| Lessors of Non-Residential Buildings (except Mini-Warehouses) | 531120 |
| Self-Storage Mini-Warehouses | 531130 |
| Lessors of Other Real Estate Property | 531190 |
| Offices of Real Estate Agents and Brokers | 531210 |
| Real Estate Property Managers | 531310 |
| Offices of Real Estate Appraisers | 531320 |
| Other Activities Related to Real Estate | 531390 |
| Passenger Car Rental | 532111 |
| Passenger Car Leasing | 532112 |
| Truck, Utility Trailer and RV (Recreational Vehicle) Rental and Leasing | 532120 |
| Consumer Electronics and Appliance Rental | 532210 |
| Formal Wear and Costume Rental | 532220 |
| Video Tape and Disc Rental | 532230 |
| Other Consumer Goods Rental | 532290 |
| General Rental Centres | 532310 |
| Construction, Transportation, Mining, and Forestry Machinery and Equipment Rental and Leasing | 532410 |
| Office Machinery and Equipment Rental and Leasing | 532420 |
| Other Commercial and Industrial Machinery and Equipment Rental and Leasing | 532490 |
| Lessors of Non-Financial Intangible Assets (Except Copyrighted Works) | 533110 |
| **ARCHITECTURAL, ENGINEERING AND RELATED SERVICES** | |
| Architectural Services | 541310 |
| Landscape Architectural Services | 541320 |
| Engineering Services | 541330 |
| Drafting Services | 541340 |
| Building Inspection Services | 541350 |
| Geophysical Surveying and Mapping Services | 541360 |
| Surveying and Mapping (except Geophysical) Services | 541370 |
| Testing Laboratories | 541380 |

| NAICS description | NAICS 2002 |
|---|---|
| **COMPUTER SYSTEM DESIGN AND RELATED SERVICES** | |
| Computer Systems Design and Related Services | 541510 |
| **MANAGEMENT, SCIENTIFIC AND TECHNICAL CONSULTING SERVICES** | |
| Administrative Management and General Management Consulting Services | 541611 |
| Human Resource and Executive Search Consulting Services | 541612 |
| Other Management Consulting Services | 541619 |
| Environmental Consulting Services | 541620 |
| Other Scientific and Technical Consulting Services | 541690 |
| **SCIENTIFIC RESEARCH AND DEVELOPMENT** | |
| Research and Development in the Physical, Engineering and Life Sciences | 541710 |
| Research and Development in the Social Sciences and Humanities | 541720 |
| **HEALTH CARE AND SOCIAL ASSISTANCE** | |
| Offices of Physicians | 621110 |
| Offices of Dentists | 621210 |
| Offices of Chiropractors | 621310 |
| Offices of Optometrists | 621320 |
| Offices of Mental Health Practitioners (except Physicians) | 621330 |
| Offices of Physical, Occupational, and Speech Therapists and Audiologists | 621340 |
| Offices of All Other Health Practitioners | 621390 |
| Family Planning Centres | 621410 |
| Out-Patient Mental Health and Substance Abuse Centres | 621420 |
| Community Health Centres | 621494 |
| All Other Out-Patient Care Centres | 621499 |
| Medical and Diagnostic Laboratories | 621510 |
| Home Health Care Services | 621610 |
| Ambulance (except Air Ambulance) Services | 621911 |
| Air Ambulance Services | 621912 |
| All Other Ambulatory Health Care Services | 621990 |
| General (except Paediatric) Hospitals | 622111 |
| Paediatric Hospitals | 622112 |
| Psychiatric and Substance Abuse Hospitals | 622210 |
| Specialty (except Psychiatric and Substance Abuse) Hospitals | 622310 |
| Nursing Care Facilities | 623110 |
| Residential Developmental Handicap Facilities | 623210 |
| Residential Substance Abuse Facilities | 623221 |
| Homes for the Psychiatrically Disabled | 623222 |
| Community Care Facilities for the Elderly | 623310 |
| Transition Homes for Women | 623991 |
| Homes for Emotionally Disturbed Children | 623992 |
| Homes for the Physically Handicapped or Disabled | 623993 |
| All Other Residential Care Facilities | 623999 |
| Child and Youth Services | 624110 |
| Services for the Elderly and Persons with Disabilities | 624120 |
| Other Individual and Family Services | 624190 |
| Community Food Services | 624210 |
| Community Housing Services | 624220 |
| Emergency and Other Relief Services | 624230 |
| Vocational Rehabilitation Services | 624310 |
| Child Day-Care Services | 624410 |

| NAICS description | NAICS 2002 |
|---|---|
| **ALL OTHER SERVICES** | |
| Offices of Lawyers | 541110 |
| Offices of Notaries | 541120 |
| Other Legal Services | 541190 |
| Offices of Accountants | 541212 |
| Tax Preparation Services | 541213 |
| Bookkeeping, Payroll and Related Services | 541215 |
| Interior Design Services | 541410 |
| Industrial Design Services | 541420 |
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